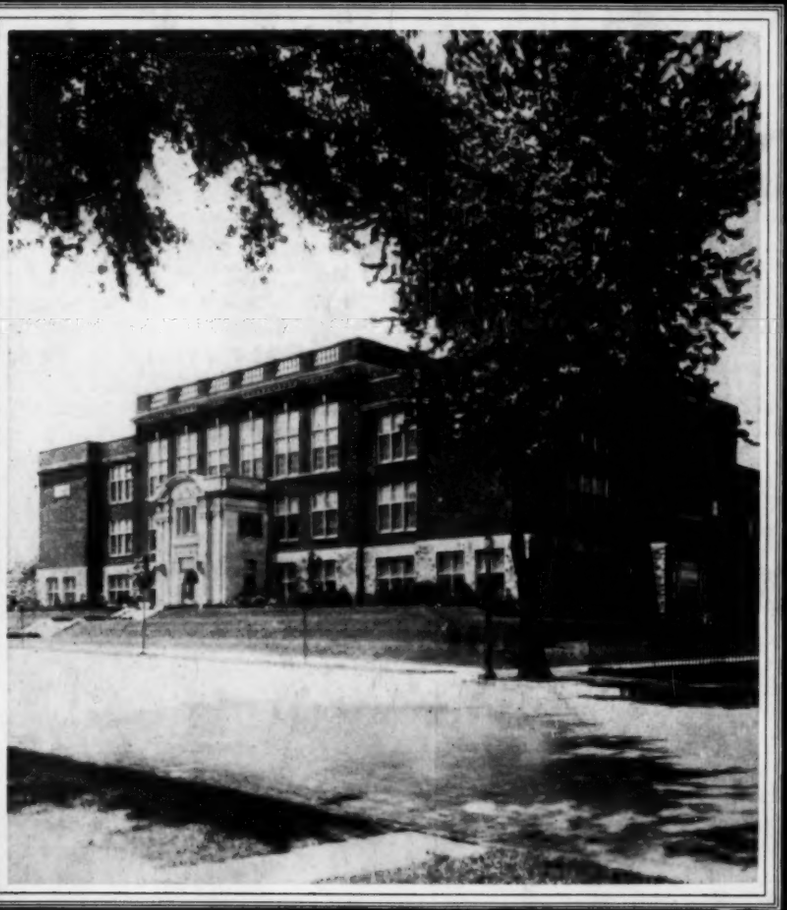
The NATION'S SCHOOLS

DEVOTED TO THE APPLICATION OF RESEARCH TO THE BUILDING, EQUIPMENT AND ADMINISTRATION OF SCHOOLS



VOL. II
No. 4

OCTOBER
1928

Published by THE NATION'S SCHOOLS PUBLISHING CO., *Chicago*

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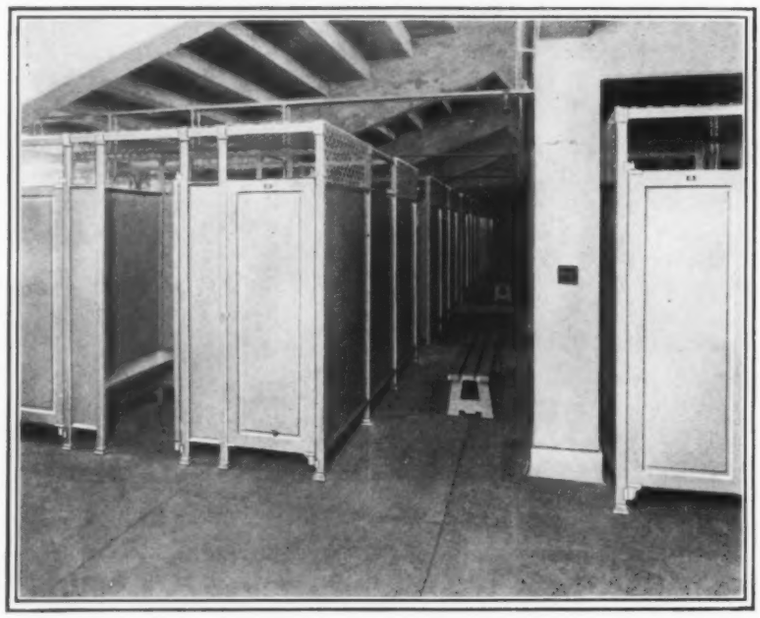

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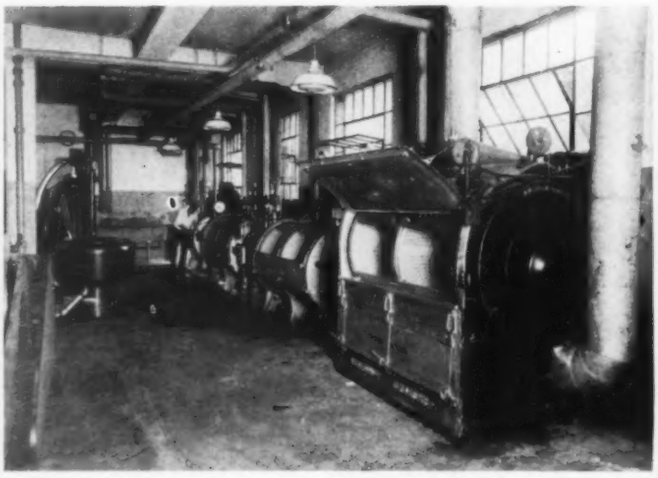

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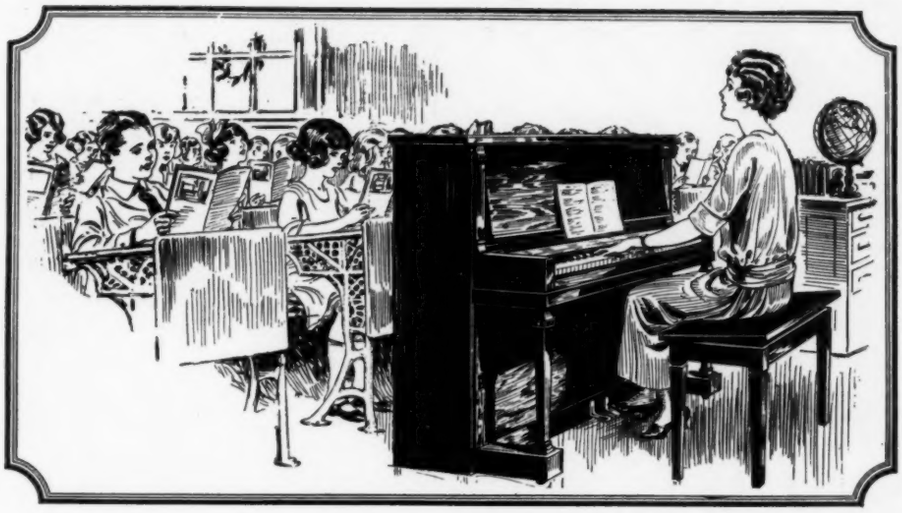

A WELL KNOWN music supervisor of a southern city recently wrote as follows: "The Cable MIDGET Upright Piano is well built, strongly reinforced in the parts where the strain is greatest —the tone is good and adequate to the largest assemblies—and above all, it keeps in tune a greater length of time."

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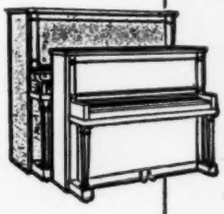

See how *Compact* is the *New Type Midget* ....occupies only the space of Two Chairs

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Do not fail to learn how easily this beautiful instrument may be yours by means of the special offer which we are making to schools, school executives and teachers. You can fully appreciate the beauty and fineness of the Cable MIDGET only when you have seen it, heard it, and played it yourself.

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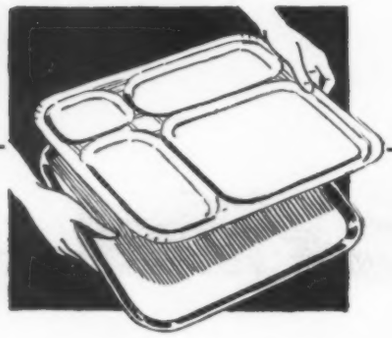

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Write for sample and prices. Let us explain and describe this durable tray that is winning enthusiastic approval throughout the school field.

Michigan Metal Products Co.
Battle Creek, Michigan

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There is No Slam or Bang *with the* NORTON CLOSER

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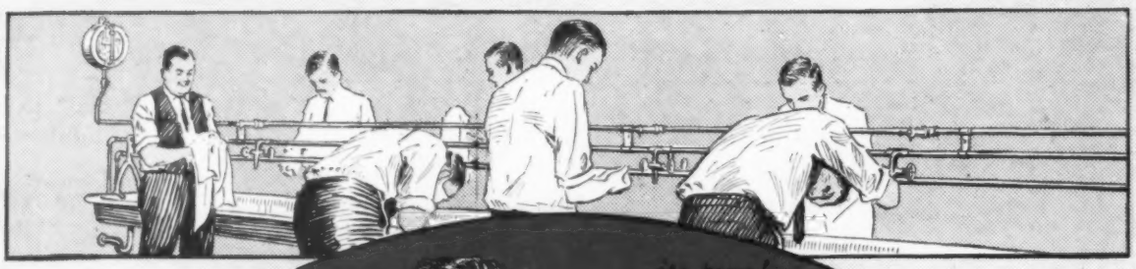

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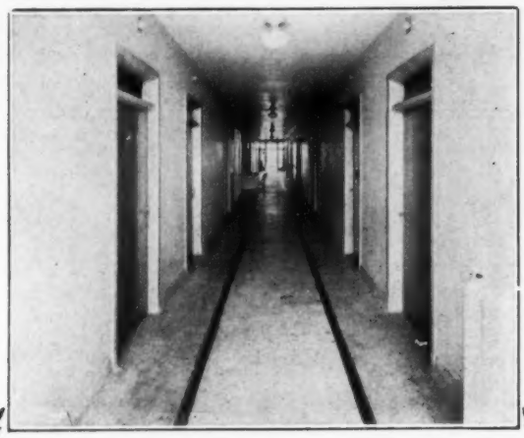

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material is
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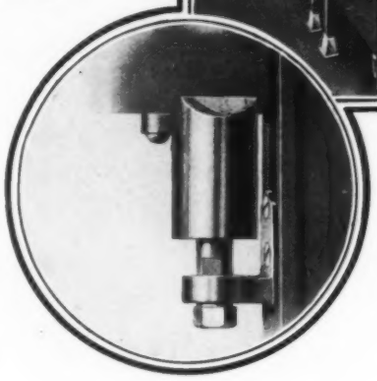

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Veneer-Steel Partitions

With the Publisher

WHAT IS PERSONALITY in the business of publishing? A business paper, an industry or a school system will, in the course of time, develop a clear and unmistakable expression of existence. And we, in our experience, come to look upon and respect this tangible or intangible thing that may be termed "personality."

What is it? In the school system its measurements are design, intent, practicability, achievement. It becomes definitely an individualism—a composite correlation of the aims and efforts of a group.

Thus the personality assumes a singularity that is unique in its difference and its variation from other systems.

With the business paper, personality comes first from an acceptance of editorship and text content by the field. The publication grows and expands, attains maturity and is judged on qualifications that are almost moral.

Plainly, the business of publishing is a sincere one. It must progress on ideals of service and assurances of integrity. With its editors rests a vital problem. The subscriber must be offered guidance. The aims of the field must be granted intimate and helpful consideration.

* * *

What of the personality of the publisher? Behind every commendable publishing endeavor is always a firmly laid foundation, often unrecognized in the ultimate. In other words, the editors and the text quality of the publication first assume prominence, rather than the economic and commercial forces that compose the foundation.

But, back of the business paper exist many good ambitions. The publisher has personality. It is shown in his publication. We find his pride in the physical character of the magazine—the paper, printing, appearance. We find his pride in the editors he appoints, the able direction and authority that he creates and perpetuates for the field.

Finally, we find his pride in those advertisers who give him their support. All in all, the personality of the publisher will be found to pervade the entire life and breath of his enterprise. It is founded on service, it lives on service, and the whole possibility of perpetuation rests on an unfailing attention to that service.

* * *

The character of the business paper must be measured in the large aspect of the publication. It must be taken broadly, not specifically. In The NATION'S SCHOOLS are discussed the problems of administration, building and equipment. Here is found the testimony of research. Yet that testimony is not limited exclusively to the text pages.

In the advertising section of the publication are numerous messages of value. Here we encounter information and facts on the many facilities that enter into the school building. Here is talk of sanitation, ventilation, food, cleansers, furnishings. From the advertisements we learn of newer things, better methods to employ in raising school standards.

All of this is important. The school executive, regardless of his position or present capacity, must keep abreast of all movement in his field. He is interested in his own problems, in the problems of others, because he appreciates that the broader his outlook, the larger his opportunity.

In his business paper he reads of many important trends, many small details. This material he analyzes, judges, stores away in his mind. He pays alert attention to the text pages—equal attention to the advertisements. His business paper is all-encompassing, and he is only too glad to profit by its thoroughness.

The NATION'S SCHOOLS.

With the football season in full swing . . . .

MORE AND MORE the modern school is meeting the responsibilities of student care—in health, sickness, accident. Now with vigorous young manhood upon the battlefields of sport, possible injuries must be watched and fully safeguarded.

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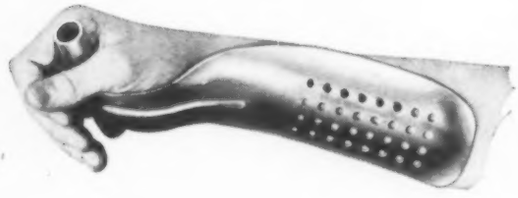

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The DePuy Adjustable "T" or Clavicular Cross

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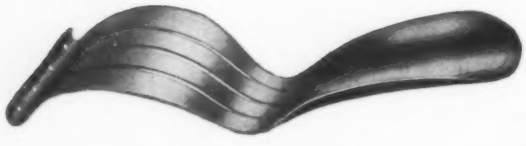

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Should the Married Woman Teacher Be Disqualified?*

The married woman is usurping the place of the young unmarried woman in the profession say some superintendents while others hold that she should be retained if her work is satisfactory

By CHARLES E. REEVES, Professor of Education, Elmira College, Elmira, N. Y.

MANY superintendents give as an important reason for the exclusion of married women from teaching the fact that their employment will keep unmarried women from securing positions. In other words unmarried teachers, they say, need special protection.

These superintendents maintain that the employment of married women shuts out the deserving single woman, and discourages high-school pupils from attending normal schools; that there is a sufficient supply of well prepared young women seeking positions; that there is a long waiting list of unmarried teachers; that employing married teachers will keep young girls out of jobs they have a right to expect; that it will discourage young people who have prepared for teaching; that places should be made for unmarried teachers who have their own living to make, and that for the most part unmarried women are dependent upon themselves.

These arguments are easily answered. If it is desirable to make way for new recruits in the teaching field it would be just as reasonable to disqualify unmarried teachers of experience as married ones. A rule might be passed prohibiting all women from teaching who have spent five years or eight years in the schools. Such a rule would make room for a great number of teachers in training who have a right to expect positions. It is evident that such a solution would be absurd, but it would be no more absurd than to eliminate experienced married women teachers to make way for recruits.

Do we eliminate experienced lawyers and physicians from practicing law and medicine because to permit them to continue will take from the coming young man, who is spending his time, money and energy for an education, the means of earning a livelihood? The younger members of other professions must compete against the odds of the greater experience of the older ones. The same principle should hold in the selection of teachers. There is no reason why we should continually sacrifice our experienced teachers in order to "protect" economically the inexperienced ones.

Welfare of the School Uppermost

The argument that the employment of married teachers will shut out unmarried teachers assumes that the board of education is responsible for giving young girls an opportunity to make their livings by teaching school, without considering the welfare of the school. Why do unmarried teachers have a right to expect positions? No one in any profession has the right to expect to displace anyone else unless he is better qualified than the one whose place he will take. As soon as a married teacher or an unmarried teacher can

*This is the second of two articles by Professor Reeves dealing with the married teacher problem. The first article appeared in the September issue.

be replaced by a younger teacher who is more efficient, such a replacement should be arranged for, but this is not a reason for discrimination against married teachers as a class.

Do married teachers show a lack of interest in their school work? Twenty-two superintendents state that they do while twenty state that they do not. One superintendent asserts that they are usually the last on the job and the first to leave. If they really do show a lack of interest in their school work this is a vital argument against their employment, but as opinion on this point is divided, even among superintendents who have recently had the married teacher problem definitely before them, it is likely that there is a lack of interest in some cases and not in others. Some means other than discrimination against the whole class of married teachers should be devised to eliminate those who show a lack of interest and retain those who are interested in their work.

Do Household Duties Interfere?

Do married teachers have divided interests? This was given as a cause for the elimination of married women teachers by twenty-three superintendents, while fourteen stated that it was not a cause. Some superintendents even take the stand that the unmarried teacher is more likely to have divided interests and that the married teacher is likely to be more settled in her ways. One says, "I have not found that the young married women were any less interested in their school work than the equally young or younger flappers who give much of their time and more of their thinking to the job of trying to secure a permanent meal ticket of the male variety." Another superintendent states: "We hear a lot about the divided interests of the married teacher. I wonder what might be said about the divided interests of the unmarried teacher who is in love, or wants to be?"

It appears that here, again, the objection may be a valid one in some cases and not in others. One superintendent states his experience thus: "I have one married teacher whose work is of the best and whose married life does not interfere with it in the least. Conversely, I have another whose school work is materially affected by marriage." Again it appears to be a mistake to pass a rule that will eliminate the teacher whose interests are not divided in order to eliminate the teacher who has other interests that claim much of her attention.

Do household duties of married women teachers interfere with school work to such an extent that it is advisable to eliminate them from the teaching corps? Thirty superintendents believe that there is such interference while fourteen believe that household work does not interfere with school duties in the employment of married women teachers. The belief is prevalent that teachers cannot give sufficient attention both to their homes and to their school work. It is said that many married women have families to care for. An example is cited of a teacher who has a home and three small children, which absorb the greater part of her energy. It is believed that school teaching is a side line with many of them, that they pay more attention to home than to school duties, that such home duties interfere with school work, that a woman can't run two businesses and do both well, that either the home or the school will be neglected more or less, and that the care of children and of the home are too great a duty for a woman teacher.

One can well have a great deal of sympathy with the viewpoints expressed by these superintendents. However, it is pointed out by others that many married women teachers have a mother or other relative to look after the home or else they are able to employ help to take care of the home. One superintendent states that many married women do not keep house or if they do they have housekeepers so that they have as much time as unmarried teachers. Another points to the advantage of employing the married woman who has taught in her earlier years, has reared a family and is now in a position to return to the schoolroom. "My opinion is," he says, "that other things being equal, such a woman is the best teacher to be had."

If boards of education can, in specific cases, be assured that household duties will not interfere with school work, this reason will not hold as a cause for discrimination against married women teachers as a class.

Qualifications Should Be Demanded

Do married women teachers have their attention engaged by too many social duties not connected with the school? Opinion on this point is again divided. Twenty superintendents answer "No," while twenty-two answer "Yes." It is doubtful whether the married teacher has, as a rule, a greater number of social duties unconnected with the school than have many unmarried teachers who are somewhat unsettled and spend many of their evenings at social affairs.

Do married women teachers lack time for social duties connected with school work? Again, opinion is divided. Twelve superintendents believe that married teachers lack time for social duties connected with school work while fourteen believe that they do not. Married teachers who have

household duties to perform probably find that they have little time to visit parents or to prepare for school entertainments for parents. But those who do not keep house should be able to spend as much time in this necessary phase of school work as unmarried teachers.

All of the above arguments point to the conclusion that married women teachers should not be discriminated against as a class. Rather should qualifications be demanded, other than that of being unmarried, which will eliminate all of the undesirable married teachers while saving the superior married teachers for the school.

Tradition plays its part in the exclusion of married women teachers. One superintendent states that it is the most important reason. Another states that married women should be excluded from teaching because there is a general feeling expressed by a majority of citizens against the policy of employing them.

The argument that married women should be excluded from teaching because of tradition is hard to answer, simply because it is not based upon reason. If the tradition of a city demands that married teachers shall not be employed one can well sympathize with a board of education that tries to carry out its community's desires by refusing to employ them. However, the board of education should ascertain definitely whether the tradition of the community really does demand that all teachers be unmarried or whether the demand is merely a loud expression by a few self-interested persons in the community. When tradition is the only reason for exclusion of married women teachers, a campaign should be inaugurated to wean the public from such an unreasonable attitude.

Influence of Politics Overestimated

School politics and personal grievances are cited as causes for the discrimination against married women teachers. One superintendent gives the following reason as operating in his city, "Discrimination against married teachers here in B— came as a result of personal grievances against one of the teachers."

One superintendent sees school-board politics in his city as the cause of discrimination against married women teachers. He states, "The reason advanced by the committee is to the effect that married teachers do not have time to give their whole-hearted interest to their school duties. The real reason, however, is that the committee is politically controlled and looks upon the schools as a place to pay political debts by engaging young daughters of political friends for teaching positions. . . . I am strongly of the opinion that if it were possible to get under the surface this would be found to be the fundamental cause in a large majority of cases where married women are shut out from teaching. Closely allied with this is the idea, in some cases held unconsciously, that the schools are run primarily for the purpose of aiding deserving (?) taxpayers and not simply and solely for the interest of the children."

It is my opinion that the influence of politics and personal grievances as factors in the adoption of the rule against the employment of married women teachers has been overstated in the above quotation. The passage of such a rule for political reasons would be, of course, a gross misuse of public trust by the board of education.

How to Meet the Problem

Up to this point our discussion has been related to the causes that operate against the employment of married women as teachers in the public schools. Let us now consider the effects of the rule against married women teachers and the methods that may be adopted to meet the problem.

Will the rule against employment of married women teachers tend to discourage professional training (above the required minimum) by prospective teachers? Sixteen superintendents believe that the application of the rule against married women teachers will discourage professional training, while twenty-eight believe that it will not. This is a debatable point. One superintendent maintains that the rule will operate to encourage girls to prepare for positions, since they will not be compelled to compete with married women. Another says that while the rule would operate to eliminate excellent teachers of experience and training, this would be compensated for by encouraging capable young girls to prepare for the work.

On the other hand it may be pointed out that young teachers may not care to spend time and money for preparation in professional schools if they are not to be allowed to use such training after marriage, for it is a fact that the majority of such young women expect to marry sooner or later. For the few who expect to remain single, the rule would doubtless create greater incentive to pursue professional courses, in that the elimination of married women would give somewhat greater assurance of a position and possibly greater salary.

Will the rule against employment of married women teachers tend to create the temporary job idea in the minds of new teachers? Eighteen superintendents believe that it will, while twenty-two believe that it will not, and six believe that the temporary job idea is prevalent in the minds

of new teachers anyway, whether or not the rule is in force. It is doubtless true that such an idea is altogether too prevalent, because so many teachers expect to marry after a few years of teaching and to give up their professional work after marriage, but to make rules that teachers must give up their professional work after marriage probably can have no other effect than to increase the number of those who consider their work as temporary.

Will the rule against employment of married women teachers increase the turnover in the teaching force? Thirty-two superintendents who sent in replies believe that the rule will increase the turnover, while fourteen believe that it will not. The consensus of opinion seems definitely to be that the turnover will be increased. If there is any value in training and experience in teachers, and few superintendents would question their value, then large turnovers in the teaching force are undesirable. The rule against the employment of married women teachers will mean that there will be an increased number of new teachers to break in each year, who will, in their turn, become married while yet in the prime of their ability as teachers, and by so doing will lose their positions to make way for other new teachers to gain teaching experience which they cannot use after they marry.

Do the Best Teachers Marry?

Will the rule against employment of married women teachers eliminate the more normal and popular women of the force and retain the freaks and unpopular teachers? Thirty superintendents believe that the rule will not have this effect, while fourteen believe that the better and more popular teachers are more likely to marry. Some believe that the better teachers are more likely to have desirable qualities in general, which will bring to them more opportunities for desirable marriage, of which they will avail themselves. Others maintain that it is the poorer teachers and freaks from the standpoint of teaching who are most likely to marry.

In general the comments of superintendents seem to indicate that most of them believe that those who marry and those who do not cannot be classified as the successful and the unsuccessful, the efficient and the inefficient, the popular and the unpopular teachers, respectively, of the force. If it be true that teachers having all degrees of efficiency both marry and do not marry, there is no argument here either for the retention or elimination of married teachers as a class.

Will the rule against employment of married women teachers eliminate excellent teachers of experience and training whose married life would not interfere with their work? Forty superintendents believe that excellent teachers whose marriage would not interfere with their work will be eliminated by such a rule, while six believe that the rule will not eliminate such teachers, probably on the grounds that all teachers become undesirable when married.

The preponderance of opinion, therefore, among superintendents who have recently had the married woman teacher problem to settle, seems to be pretty clear that efficient married women teachers whose marriage will not interfere with their work will be eliminated. To the extent that good teachers will be eliminated the rule will work an injustice to the teachers and, unless their places are filled by equally good teachers, it will be a detriment to the school. In other words, the rule will sacrifice some of these excellent teachers in order to eliminate some who are undesirable because married.

Further Analysis Needed

If opinion on this point is valid, by what logic do boards of education arrive at the conclusion that they should eliminate married women as a class, rather than establish rules relating to the particular factors that make some married women undesirable as teachers but do not apply to others? The remedy seems to lie in a further analysis of the factors that sometimes make married women undesirable teachers. Then, on the basis of such an analysis rules can be established that affect directly such undesirable traits or conditions.

Possibilities for dealing with the problem of the married woman teacher range from absolute exclusion of married women teachers, through partial use of married women as substitutes, to their employment on an equal basis with unmarried women teachers. The possibilities may be stated as follows:

1. An ironclad rule excluding all married women from service as teachers in the schools. Few boards of education, even those making rules against the employment of married women teachers, go to this extreme.

2. An ironclad rule excluding all married women not employed as teachers at the time of the passage of the rule. This seems to be the form the rule against employment of married women teachers usually takes. This, of course, will ultimately amount to a rule against all married women teachers, if the rule remains in force sufficiently long. Both this and the preceding rule seem to be unfair to the efficient, well trained and experienced married woman teacher whose house-

hold duties do not interfere with her school work, and also to the teacher, already employed, whose marriage will act as a resignation, according to provision against marriage written into her contract.

Such rules are detrimental to the school system in that they lose to the school experienced teachers who have served well, often replacing them with inexperienced persons, or at least those whose qualifications are not so well known.

3. The temporary rule against employment of married women teachers. The object here is to keep a balance between the two groups of teachers. This may be advisable if it can be determined that the percentage of married women teaching in any system should be limited, and where such limits should be placed. It may often be desirable, also, to limit the number of local teachers, in which case some married women may be excluded without enforcement of a rule against them as a class.

4. The use of married women, usually former teachers, as substitutes. This plan has been adopted in a large western city that has a rule against employing married women for permanent positions, and it is in use in many cities that have no such restrictive rules. The superintendent of the western city writes: "The plan permits married women to withdraw from service at the end of any particular assignment without any interruptions. We are much pleased with this use of married women. Our practice is to use those who before marriage were teachers of our own force whenever such are available."

Use of Substitutes One Solution

This system seems to work well even where women have household duties to perform, in that they are free much of the time, the work is intermittent and they are not obliged to teach when other duties claim their attention. This provision does not, however, provide for the permanent employment of the efficient married women who can give the schools the professional services which their training and experience have made possible, and who are not in any way handicapped or made inefficient by their marriages.

5. Discrimination against all married women except such as are dependent upon their own efforts for support. This is a provision in force in a number of cities and is altogether too prevalent for the good of the schools. As was previously pointed out, such a rule assumes that the schools are to be used as a means of poor relief and that the board of education is responsible for finding employment for women whose husbands are not able to support them, or are dead. This would eliminate the capable, happily married woman without children, who has a husband to support her, but desires to make her life useful and to use her professional training and experience in the schoolroom. It would also give employment to the overworked woman who has a family to support and household duties to perform. The rule that would give employment to such married women as are dependent upon their own efforts for support, while excluding others, is clearly wrong from the standpoint of what is best for the schools.

6. The employment of some married teachers, but the giving of preference to unmarried ones. One superintendent writes: "We do not have a rule against married women. However, preference is given to unmarried women." This policy permits the board of education to retain excellent married women of training and experience while excluding the others. However, it seems that it is still the wrong policy to give preference to unmarried teachers, in case all other things are equal. Qualifications for service, alone, should receive consideration, and these are largely individual in their nature.

Let the Board of Education Decide

7. Reserving the right, in the teacher's contract, to demand the resignation of any woman teacher who marries during the period of her contract. This seems to be a wise provision, for it permits married women to teach but makes it possible to eliminate such as become inefficient or unable to fulfill their duties satisfactorily because of their marriages. The discretionary power is thus left with the board of education.

8. No regulations concerning the employment of married women teachers. This is probably still the practice in the great majority of school systems. This is the other extreme from prohibiting the employment of any married women teachers. The growing number of rules against the employment of married women teachers, however, points to the desirability of providing for the elimination of those who become undesirable as teachers because of their marriage, while retaining those whose efficiency marriage does not affect.

9. The placing of married women upon the same basis as unmarried women both as to selection and tenure, having the requirements for both classes sufficiently rigid to exclude those who are inefficient or undesirable. This will necessitate analysis of the causes that operate to make some married teachers inefficient or undesirable. When such causes are determined they may be stated specifically in rules.

For example: Rules may be made to require certain standards of health for both married and unmarried women teachers, to require certain standards of training, experience and merit, as is now common, to require that both married and unmarried women shall, if maintaining a home, have someone to care for it, to require that neither married nor unmarried women teachers shall have dependents to care for, and any other like provisions that may be necessary to eliminate the undesirable married women teachers and the undesirable unmarried women teachers as well, while retaining the efficient teachers of both classes.

The only clause that would need to be different in the contracts for married and unmarried teachers would be that terminating the contract in case a married woman teacher becomes pregnant. This would doubtless cause some interruptions of work, but such interruptions would be fewer than those caused by rules terminating contracts of unmarried teachers because of marriage.

With rules in force that apply alike to married and unmarried teachers and that will eliminate the undesirable teachers from both groups, boards of education will avoid the injustice that arises from the elimination of a whole class in order to exclude a few who are inefficient. In this way they will alleviate to some extent the continual turnover of teachers, which tends to sacrifice the trained, experienced teacher for the younger recruit. What is still more important they will then make efficiency and desirability, applied both to married and unmarried teachers, the sole criterion for their employment and retention.

Use of Motion Pictures Increases in Schools

Despite the difficulties that have arisen in the development of the teaching film, motion pictures for educational purposes are now in use in more than 15,000 schools of the country, according to a report of the Bureau of Education.

Projecting machines have been installed in the auditorium of the various schools, or else a portable projector easily operated by the teacher or by an intelligent pupil, is used in the classroom. Educational films are supplied to the schools either through distributing agencies or by state universities from film libraries in their extension departments. Yale University has helped in the preparation of a series of films on American history and Harvard is now cooperating with a well known film producing concern in making films relating to science. Several other universities are making films on their own account.

In many cities, such as Newark, N. J., motion picture apparatus is a part of the standard equipment of every new school. In Cleveland practically every school is thus equipped.

The supply of teaching films, however, has not kept pace with the demand and the schools are confronted with the problem of securing suitable pictures to supplement textbook instruction. Many companies organized for the manufacture of educational films have been forced out of business because the number of schools using their product regularly was not sufficient to insure them a profit. Other concerns tried supplying nontheatrical films but found that they were losing money and stopped. This difficulty, together with the cost of equipment, the expense of operating the machines, the inconvenience of shifting pupils from classrooms to auditorium and the lack of coordination of the subject matter of available films with the regular work of the schoolroom has no doubt detracted from the more general use of this type of instruction.

The situation nevertheless is improving in many respects. The portable projector has been found to be ideal for classroom use and the narrow film reduces the cost materially. Thus a teacher may give her lessons in the approved fashion, using lantern slides and illustrative films to supplement her verbal instructions.

In the platoon schools of Detroit and Pittsburgh, a "professional" projector is used in the auditorium and one day a week is given to motion pictures as a part of the auditorium exercises. The programs are arranged in advance and are planned to make the pictures coordinate with the classroom teaching.

In recent experiments on the value of educational films to the pupil, forty films were developed and a hundred others planned. A company has been organized to produce these films and to promote their use.

Pupils in Forty-Two States Must Take Medical Tests

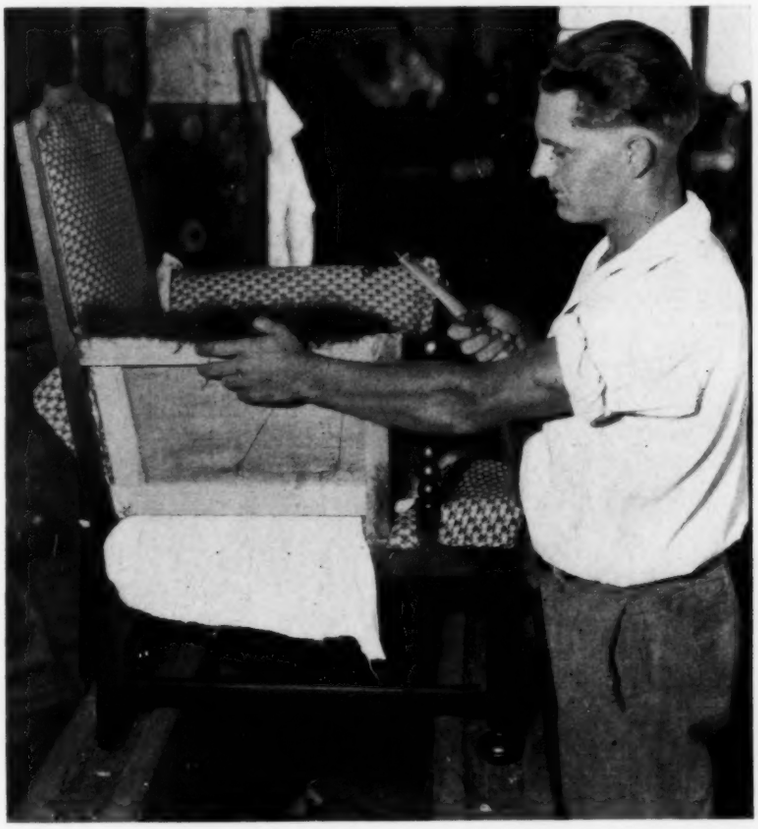
Existing laws in forty-two states require a medical inspection of all school children although the laws vary in many respects, according to an article in *School Life* issued by the Bureau of Education. In sixteen states medical examination of pupils in all school districts is compulsory. In twenty-three states examinations are given by trained persons—physicians, nurses, physical directors, dentists or a combination of these. In thirteen states examinations may be given by the teacher; in two states, by the superintendent, principal or teacher.

The Part-Time School—What It Is and What It Offers

Intelligence tests have revealed a need for more stringent regulations with regard to school attendance and as a result the part-time school has developed to meet an economic need

By EDWARD BRANSON COUCH, Principal, Polytechnic Vacation School, Los Angeles

THROUGHOUT the United States during the past decade there has grown up a new system of schools known as part-time schools. These schools have been designated in various ways to get rid of the name "part-time." Nevertheless they are still what they were intended to be—schools attended by pupils for part of a day and part of a week only.



The training given in upholstering is of a practical nature and can frequently be turned to good account in the pupil's later life.

These schools are a natural outgrowth of the economic pressure in our country today. They began informally and without name, long before the part-time idea was thought of, in regular high schools in which pupils attended a part of every day and worked the other part of the day to help support their families. The part-time idea arose in an attempt to give the pupil practically full-time employment, from which employment he is excused a portion of the week to attend school. This time in school varies from four hours a week to eight hours a week.

The tightening of the compulsory education laws in this country, due to the results of the army tests showing the percentage of illiteracy ranging from 17 to 41 per cent in various places under certain tests, has accelerated the development of these schools and determined the type of pupil who should be placed there. The grade of the pupil may be from the sixth grade up through high school, and the age may range from fourteen to eighteen years for compulsory attendance. Voluntary attendance may be up to any age. In some states compulsory attendance is maintained for illiterates to the age of twenty-one.

Hence, it is readily seen that the type of pupil in the part-time schools is different from that in the regular schools. He is different because of his need of employment, which connotes lack of leisure, luxury, relaxation and other things that the normal, growing child of the so-called middle class family has. He is different also because of his outside vocational contacts. Resourcefulness and independence, together with originality and ability to work, aimed at as ideals in the regular schools, are acquired in the vocations. They are acquired not as a matter of ideals or from an academic point of view, but because of necessity. If they are not acquired, the pupil must find another position and that in itself, although harsh, is effective education and will

The radio department has proved to be of practical value to many men.

finally build up and stabilize the pupil's character.

It is with this type of pupil that the part-time school has to deal, and therefore its problems are different from those of the regular school. One of the first difficulties to be met is the "unschool" attitude of the pupils. They cannot see, in many cases, why the school cannot be run in somewhat the same way as a business institution rather

The home decorating classes aid many girls in preparing for the future.

The maze of wires that serve to make up an armature might prove baffling to an untrained eye, but the young man on the right seems to be thoroughly familiar with the device.

than as the old type of academic school. The discipline must be quite different. Class work and class discipline must be built for the individual rather than for a class. The school is reduced to a point where it consists of a pupil and a teacher working together on a subject for the benefit of the pupil—not a bad ideal for any school.

The next difficulty in the part-time school is the curriculum. It is found that pupils making successful contacts in occupational lines consciously or unconsciously arrive at a set of curriculum standards different from those of the regular school pupils. Most of them feel that there should be a direct relation between their school work and the work they are doing on the outside or the work they may want to do later. In other words, subject matter and activity in a part-time school must have a definite connection with the life work of the pupil.

Again we find that the part-time pupil has different needs from those of the regular school pupil, in the way of school life and associations. More intimate social relations must exist between teacher and pupil. Extracurricular activities, such as clubs, are helpful. Group parties and entertainments under the direction of the teacher, planned in such a way as to give group unity and good citizenship ideals, are helpful.

The third factor in the school, the teacher, is the most difficult one to discuss. From what has been said, it is apparent that he must be an unusual person. He must have learned enough of the essentials and ideals of education to realize that he is merely a director of activities that will result in growth for the pupil, a growth that will aid him in earning a livelihood, becoming a good citizen and taking his place worthily in family life. The successful part-time teacher does not have an opportunity to "school teacherize" his manner or his subject matter.

To some of us, part-time school, by whatever name it may be called, is the greatest opportunity for educational endeavor that has ever existed in our educational history. It is on the firing line between preparation and execution, between learning and doing—a vantage point highly to be desired.

Advantages of the Single Salary Schedule

The single salary schedule, a schedule providing equal pay for equal training and experience whether the teacher teaches in an elementary or in a high school, is growing in favor among city boards of education. Among the advantages claimed for this type of schedule are the following: teachers of superior ability and training are attracted to the elementary schools; class consciousness among teachers is largely eliminated; high standards of professional attainments are emphasized and professional study and growth are encouraged among the elementary-school teachers; teachers may be transferred without financial loss from positions for which they are not adapted to positions where they can render efficient service—for example, some persons teaching in the high school may be better adapted to elementary-school work, but if the salary is less in the elementary schools they would suffer a financial loss if they were transferred.

Measuring the Teaching Load in the High School

Tendency to reduce the number of classes and extraclass duties is seen as an encouraging sign for better prepared teachers and for more effective methods of instruction in high schools

By HARL R. DOUGLASS, Professor of Education, University of Oregon

THE slow but steady increase in the number of high schools in which the teaching load has been reduced to five classes or less reveals an encouraging tendency. Ten years ago the high-school teacher whose assignment consisted of fewer than six class periods a day was exceptional. A considerable number taught classes or kept study hall for seven or eight periods. Careful preparation for classes was out of the question. Most of the time left in a working day of nine hours was spent in reading notebooks and papers, in recording grades, in attending faculty meetings and in conferring with pupils.

It is gratifying to note that in more and more high schools each year teachers are assigned to five teaching periods only. To be sure, the five teaching periods are in a majority of instances supplemented with responsibility for some extracurricular activity, such as debating, dramatics, the glee clubs, the school orchestra, athletics, class or club activities or the school paper or annual. Administrative assistance in office work and in keeping the school records may be required, as also may study hall duty. As a result, the net gain in free time for preparation and study is not great.

Little Time for Preparation

On the other hand, if the added responsibilities for extracurricular activities, so greatly developed within the last fifteen or twenty years, had not been offset by some reduction in the number of teaching periods, the condition would have been deplorable and ridiculous. As it is, with the lengthened class period, now often fifty or fifty-five minutes without interruption, an absurdly small margin of time is left for the preparation of lessons. Carefully worked out plans of procedure are out of the question. Careful analysis and diagnosis of the work of the individuals in the classes are rarely attempted. The strain of teaching is such that it is unwise for any teacher to spend more than nine hours a day at her work and for the majority of teachers eight hours should be the rule. Adequate preparation for more than two or three classes is impractical, since approximately six hours a day are needed for teaching, for conferences and for the reading of papers.

Teaching Method Is Impromptu

Visits to classrooms impress one with the general rough-and-tumble, catch-as-catch-can methods of teaching in use. The teaching method is largely impromptu and is developed as the work proceeds. It is for the most part oral quiz over four or five pages of highly condensed textbook, supplemented occasionally with an explanation by the instructor. In most instances the instructor adds little to the material in the text. She has had no time for preparation. Opportunities to put life into the skeletons of the text pass unrealized. Charts, diagrams, films, slides and specimens are lacking because their making requires time. Originality in the prevailing teaching methods is rare, and there is little opportunity for college training to function. The textbook quiz type of teaching observed so often in history, mathematics and foreign languages does not require a college education. Any intelligent young man or woman with a fair personality who has mastered the high-school subjects should do as well as a college graduate.

College instructors are rarely asked to teach more than three hours daily. In the better institutions ten hours a week for most subjects is the rule and in some, an assignment of six or seven hours a week constitutes the instructor's load. More often than not, the college teacher is furnished readers or other assistants to help him in the reading and marking of papers, notebooks and tests. Seldom is he required to coach or supervise student activities. And all this is true in face of the fact that the college student is four years more mature, that he is better disciplined, more highly selected and, consequently, more able

to withstand poor teaching than is the high-school pupil. To be sure, the college teacher has his research activities, but there are many who find no time for research on a schedule requiring ten teaching hours a week. Allowing for research and for the peculiar nature of college instruction, which on the whole is by no means superior to the better grade of teaching in the high school, the discrepancy between the teaching load in the high school and that in the college is great enough —the former being from two to three times as heavy as the latter—to provoke discussion of the question of what is a fair teaching load.

Small Classes Not Superior

Some have preferred to measure the teaching load by the number of pupils taught rather than by the number of classes taught. In general, however, a class of thirty pupils is not twice the load of a class of fifteen pupils or anything like it. If one is to be confined to one of these two criteria of judging teaching loads, the number of classes is a much more sensible measure than the number of pupils. Perhaps a measure taking cognizance of both would be better still. In the absence of a better formula the following is suggested:

$$\text{Teaching load} = \text{No. of Cl.} + \frac{\text{total pupils} - (\text{No. of Cl.} \times 25)}{60}$$

The formula cannot be derived or mathematically justified. It can be justified only by application. In case a teacher had five classes of an average of thirty-seven pupils her teaching load would be

$$5 + \frac{185 - 125}{60} = 6.0$$

That is to say, five classes averaging thirty-seven pupils would constitute a teaching load equivalent to 6.0 classes averaging but twenty-five pupils each, or the extra twenty pupils in five classes would constitute a teaching load equivalent to an additional class of twenty-five pupils.

A teacher teaching six classes averaging fifteen pupils would rate a teaching load of

$$6 + \frac{90 - 150}{60} = 5.0$$

This is another way of saying that the teaching of six classes averaging fifteen pupils each is equivalent to the teaching of five classes averaging twenty-five pupils each.

The "25" appearing in the formula is selected on the assumption that 25 is close to the optimum size of a high-school class. It is the standard set by the North Central Association of Secondary Schools and Colleges and is as generally accepted as any other number. Classes of less than that enrollment may be regarded as uneconomical. The advantages accruing from the smaller classes are too small proportionately when compared with the increased per pupil cost. Classes of larger enrollments may be regarded as economy in per pupil cost at a disproportionate lowering in conditions favorable to effective teaching. Just how true these assumptions are it is hard to say, but it is certain that they constitute approximately the consensus of opinion of teachers and principals generally.

In Stevenson's experimental study on the effect of size of class on quality of instruction, it was established beyond serious doubt that there is little foundation for our faith in the so-called marked superiority of small classes over large classes so far as favorable teaching conditions are concerned. The increased effectiveness of reducing classes from thirty-five or thirty-six to seventeen or eighteen is much smaller than has been commonly supposed. In fact, pupils do almost as well in classes of thirty-five as in classes of fifteen. Subsequent studies of a similar nature bear out Stevenson's conclusions. To be sure, it is difficult to believe the truth of this, since our prejudices in favor of the smaller class are deep-seated, general and of long standing. But the experiment was carried on under such conditions and involved so many hundreds of classes and thousands of pupils as to leave little doubt of the soundness of the conclusions.

It seems that good business policy dictates larger classes and smaller teaching loads. Better than a load of six classes averaging fifteen pupils, both from the standpoint of the teaching load and economy, is one of four classes of thirty pupils, with more time for preparation, for planning and for effective presentation.

Number of Preparations Important

The suggested formula given above includes only two variables—number of classes and number of pupils. There are other variables that go to make up the teaching load, namely, the number of class preparations, the length of the class period and the difference in the amount of preparation required in the various subjects. Perhaps the most significant of these is the number of preparations. Certainly five classes with two preparations is a lighter load than five classes with four or five different preparations. It is desirable to modify the formula to allow for this third variable. Perhaps it is fair to say, in the absence of any more reliable data, that with respect to the teaching load three preparations are approximately equal to a class recitation plus

preparation. No doubt if it could be actually determined the ratio would be between two to one and four to one and probably closer to three than to either two or four. The formula then becomes

$$\text{Teaching load} = \text{No. of Cl.} + \frac{\text{No. of Pupils} - (\text{No. of Cl.} \times 25)}{60} + \frac{\text{Prep.} - 3}{3}$$

Employing the formula we would find the load of teaching six classes, averaging twenty-five pupils each, with two preparations, would constitute only a teaching load equivalent to that involved in five classes of the same average size with five preparations. This may be seen from the two following solutions of the formula:

$$\text{T.L.} = 6 + \frac{150 - 150}{60} + \frac{2 - 3}{3} = 5$$

$$\text{T.L.} = 5 + \frac{125 - 125}{60} + \frac{5 - 3}{3} = 5$$

If the matter of providing standards for judging and equating teaching loads were to be carried further it would be necessary to work out coefficients by which the teaching load for different subjects might be equated. For example, if it is agreed that teaching a class in English is equal to 1.2 classes in history or 1.3 classes in mathematics, or 1.4 classes in French, which is probably doubtful, relative teaching loads could be determined by selecting some subject near the middle of the list of subjects arranged in the order of the load involved per standard class. By calling this subject load, Coefficient 1, coefficients could then be determined for the other subjects which would, of course, be in excess of one for the subjects resulting in the heaviest loads and less than one for those resulting in loads greater than one.

Assignments Must Be Reduced

Perhaps some enterprising graduate student in search of an interesting and practical research theme for a graduate thesis will work this out. But at any rate, without these coefficients, the formula given above is much more accurate than the means commonly used for measuring teaching loads, that is, number of classes, number of pupils and number of hours.

It is certain that professional teaching will not be possible until teaching assignments are still further reduced. The reduction that has taken place has been largely offset by increased extracurricular duties. Adequate study, keeping abreast of the movements in education, the use of new and better methods, thoughtful planning of each day's procedure, careful supervision of written work, and all the other desirable requisites for first-class teaching will have to wait upon reduced teaching loads. The college teacher carries a teaching load of from eight to twelve fifty-minute periods a week. The secondary-school teacher of England, Germany and France carries a load of eighteen to twenty such periods with practically no responsibility for extracurricular activities. The time must be hastened when a teaching load of twenty-five periods per week is regarded as a maximum load, even at the expense of having larger classes, and, in all cases where heavy demands for time are made in extra-class activities and the like, a load of twenty hours will be regarded as a fair average teaching load.

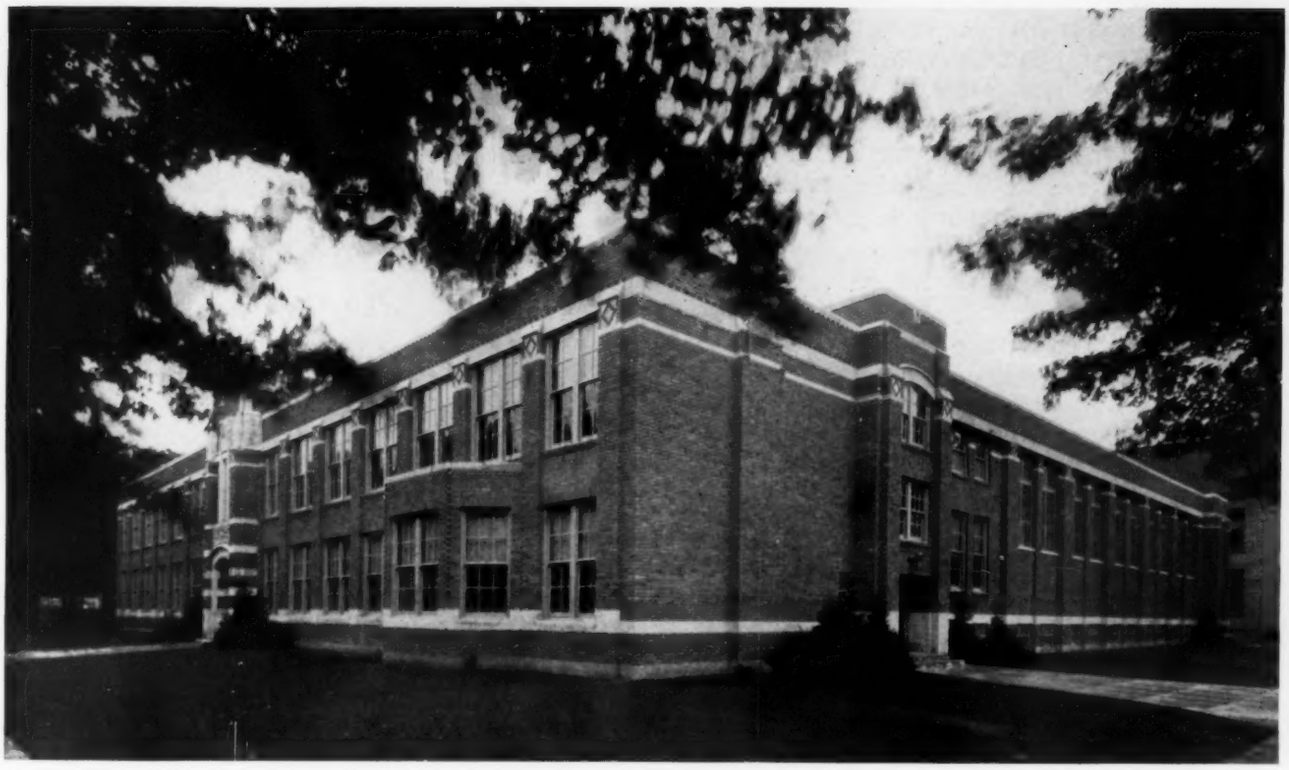
An Inducement for Improving Work

As an inducement for the teacher to improve in her work, and as a condition that must be met before the public has a right to insist upon self-improvement among teachers, the salary schedule is of fundamental importance.

An adequate salary schedule should include the following:

1. A beginning or minimum salary adequate to induce capable young men and women to make satisfactory academic and professional preparation to enter the teaching profession as a life work.
2. A provision for placement for previous service in teaching that encourages teachers of experience and proved merit to seek employment on an advanced salary.
3. Provision for annual increases in compensation sufficient to prompt teachers to continue in the teaching profession.
4. A maximum salary that shall constitute more than a living wage and be sufficiently high to make it unnecessary for a first-class teacher to seek administrative or supervisory work exclusively for financial reasons.
5. Provision for higher compensation to the teacher for unusual or exceptional preparation for her work or superior ability in the art of teaching.
6. Provision for leave with part pay for professional study.

A salary schedule that is characterized by these elements will justify persons of unusual ability in entering the profession, will reward them for service faithfully rendered and will give financial recognition in cases where superior ability shows that it is deserved.



Charlevoix Elementary School, Charlevoix, Mich.

Planning Progressive Schools for Progressive Education

By ARTHUR R. SHIGLEY, Department of Educational Engineering, Warren Holmes-Powers Company, Architects, Lansing, Mich.

THE history of progressive schools is a record of the resourcefulness and originality of inspiring teachers. More than any other factor, human relationship has always governed our upward climb.

This is the reason why our material conveniences have improved beyond even the dreams of a generation ago. It explains why the outer fringes of our educational march originate departures in both form and method distinct from the conservatism of our average educational institution.

In no department of architecture within the last ten years has progress been so marked as in that devoted to the planning of schoolhouses, a class of buildings of the first importance because of the influence they exert in their communities, and because their excellence or lack of it serves to elevate or to lower the educational standards of entire districts. Study of school structures has resulted in their being given a high degree of architectural distinction and dignity in design, while study directed toward their planning and equipment has led to their being practical and economical far beyond what was regarded as an advanced standard of efficiency a few years ago.

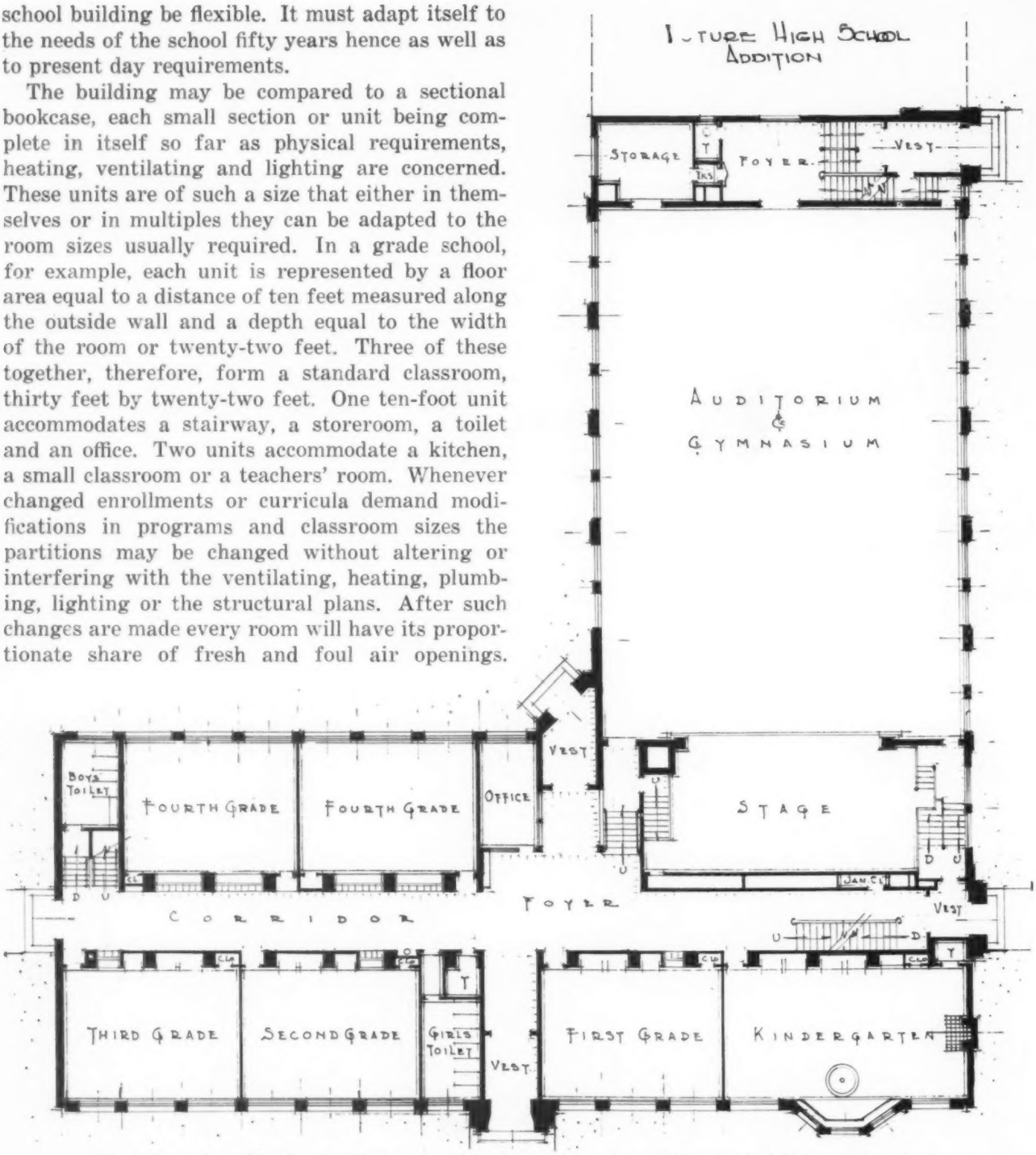
Future Needs Must Be Considered

The Elementary School, Charlevoix, Mich., is planned to give recognition to the importance of supplementing the contribution of teachers with appropriate environmental conditions that distinctly add to the child's interest and knowledge. The classroom design is divorced from the frequently accepted concept that the traditional schoolroom is built and equipped for the purpose of storing the mind with facts, and subscribes to the present tendency in focusing attention on the performance of activities useful in life.

Such a classroom typifies the present day advance in educational building. It meets, in the first place, the fundamental demand that the modern

school building be flexible. It must adapt itself to the needs of the school fifty years hence as well as to present day requirements.

The building may be compared to a sectional bookcase, each small section or unit being complete in itself so far as physical requirements, heating, ventilating and lighting are concerned. These units are of such a size that either in themselves or in multiples they can be adapted to the room sizes usually required. In a grade school, for example, each unit is represented by a floor area equal to a distance of ten feet measured along the outside wall and a depth equal to the width of the room or twenty-two feet. Three of these together, therefore, form a standard classroom, thirty feet by twenty-two feet. One ten-foot unit accommodates a stairway, a storeroom, a toilet and an office. Two units accommodate a kitchen, a small classroom or a teachers' room. Whenever changed enrollments or curricula demand modifications in programs and classroom sizes the partitions may be changed without altering or interfering with the ventilating, heating, plumbing, lighting or the structural plans. After such changes are made every room will have its proportionate share of fresh and foul air openings.



First floor plan, Charlevoix Elementary School, showing where high-school addition will be built.

This school building, in other words, is flexible. Even to the smallest detail it is laid out to adjust itself from time to time to every educational requirement that the future may hold in store. No change in educational purpose is hampered by structural obstacles. No progressive administration becomes housebound under this type of flexible school planning.

It is difficult to imagine a building planned and constructed in 1928 that will not be more or less of a misfit in 1988. The educational horizon gives no indication that school programs are static. The next generation will develop improved programs that will demand a flexible housing plan. Flexibility is the first requirement of progressive school buildings.

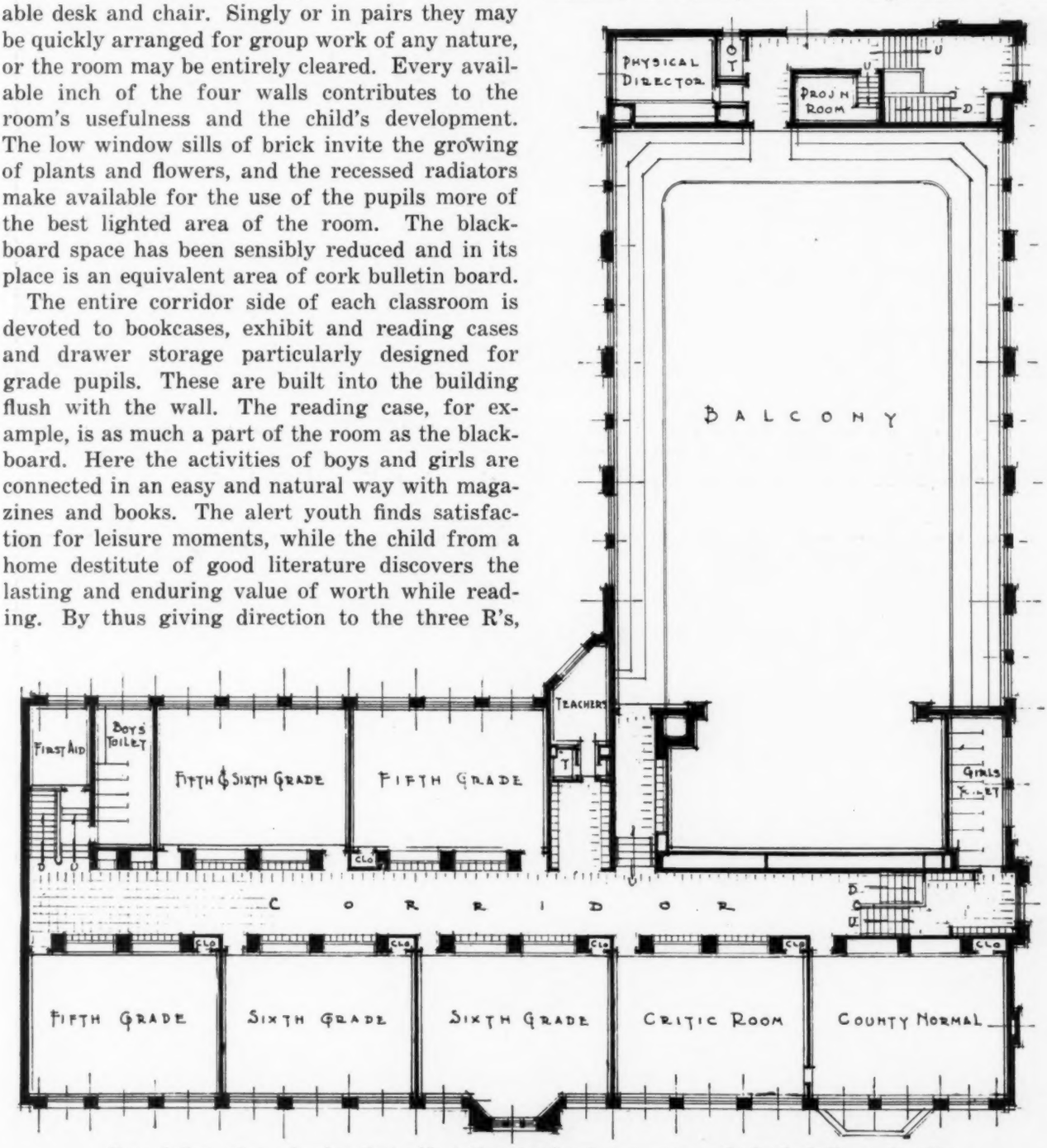
In the second place, the undercurrent of educational trend is to discover and then to follow the interests of the pupil, and to surround him with an environment that will make the time spent in school a living of life rather than a preparation for life. The conservative, sterile type of educa-

tion is disappearing from the early training of our children. It still persists in secondary schools, but it is bound to go. Whether we belong to the traditional or to the progressive school of thinking, we are blind if we do not recognize this modern transformation.

School buildings must interpret this fundamental change and make provision for it. Classrooms that are actual workshops in history, language and English must be developed. In the Charlevoix school, for example, the typical grade room is a delightfully appointed home for the child's school life. Each pupil has his own movable desk and chair. Singly or in pairs they may be quickly arranged for group work of any nature, or the room may be entirely cleared. Every available inch of the four walls contributes to the room's usefulness and the child's development. The low window sills of brick invite the growing of plants and flowers, and the recessed radiators make available for the use of the pupils more of the best lighted area of the room. The blackboard space has been sensibly reduced and in its place is an equivalent area of cork bulletin board.

The entire corridor side of each classroom is devoted to bookcases, exhibit and reading cases and drawer storage particularly designed for grade pupils. These are built into the building flush with the wall. The reading case, for example, is as much a part of the room as the blackboard. Here the activities of boys and girls are connected in an easy and natural way with magazines and books. The alert youth finds satisfaction for leisure moments, while the child from a home destitute of good literature discovers the lasting and enduring value of worth while reading. By thus giving direction to the three R's, school work becomes more lifelike and consequently more interesting.

The letter drawer in this case provides each child with a convenient file for his tagboard folder of letter size. In this folder he keeps his own selection of newspaper clippings, stories of Lindbergh's flights, interesting photographs from Sunday photogravure sections, and a wide selection of news stories and references of scientific and historical interest. The learner in this way forms close connection between every-day happenings and classroom history and geography. The teacher, of course, must be responsible for the



Second floor plan, showing first aid station, teachers' rest room and physical director's office.

Above is a picture of the fourth-grade room of the Charlevoix Elementary School. The atmosphere here is one conducive to good work.

Below is the entrance foyer of the same school showing the main office and one of the bright, cheerful corridors of the building.

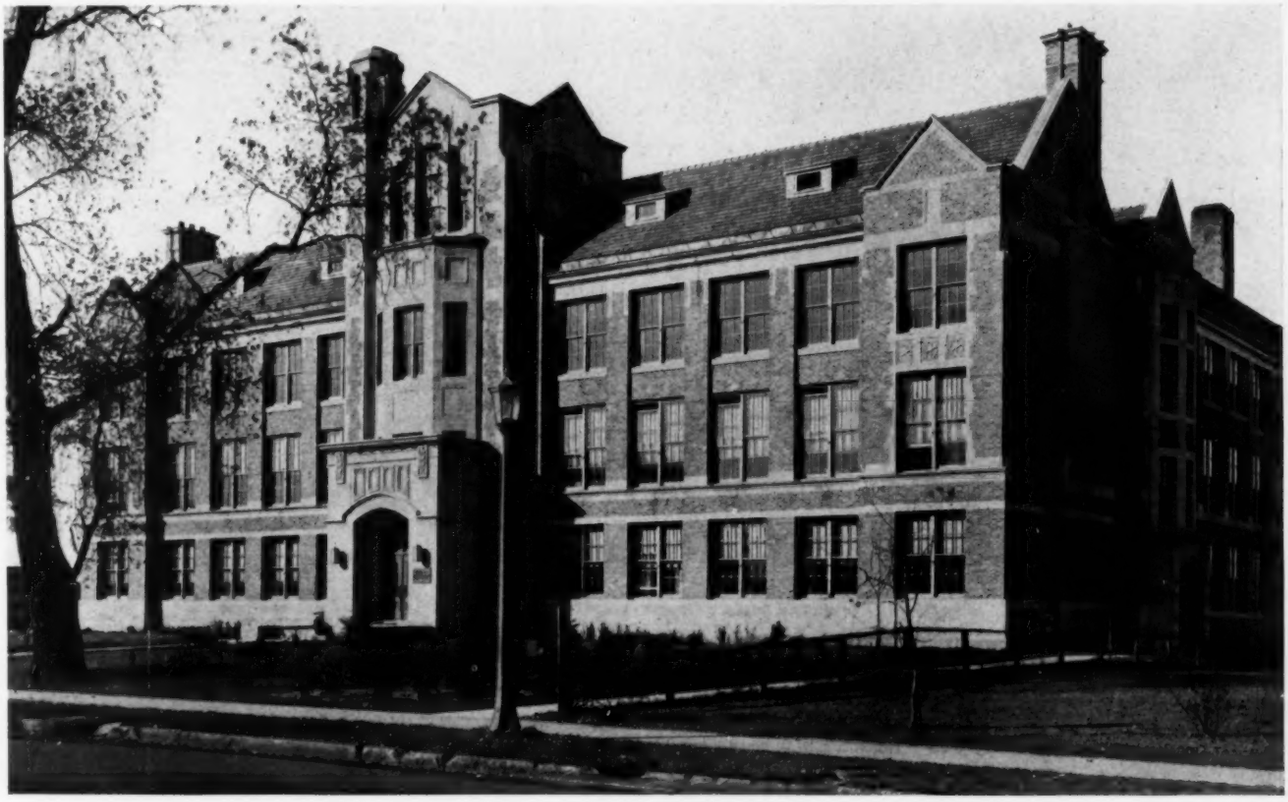
development of this type of laboratory teaching but the structural design of the classroom itself must help rather than hamper her progress.

"Children," Cobb says, "do not need to become walking encyclopedias. Access to facts is at hand everywhere. If children are trained in research methods, if they know how and where to find the facts they need and have acquired the ability to gather and formulate the required information, they are possessed with something more than an undigested mass of knowledge. This creative method of education is both more joyous and more valuable than the old method of education that made the child the slave of textbooks."

The traditional classroom was built and equipped on the assumption that the purpose of the school was to store the mind with facts. Today we bring into the classroom the materials from an environment that is inseparable from common human experiences. It requires that the school be well stocked with materials that may be found in the home, the store or the factory, and that ample provision be made for the storage and display of this cross section of life outside of the schoolroom.

Through the exhibit case this progressive school idea is realized and the opportunity to broaden educational service offered. Our great public buildings are veritable museums of interesting exhibits. Why not our schools? The use of modern exhibit cases, favorably recessed in corridor and classroom walls and sensibly employed by resourceful teachers, illustrates in a thousand and one ways the social and industrial life outside the school as well as the activities within.

Boy and girl scout displays, interclass and interschool athletic records and trophies, curios and natural science specimens suggest an almost endless list of educational material which through the exhibit cases plays a definite part in the instruction of the child. Academic classes, such as English and history, find the exhibit cases valuable. Interesting neighborhood documents, collections of stamps, coins, rare books, illustrations of ancient writing all suggest supplementary accompaniments to class activity.



National Kindergarten and Elementary College, Evanston, Ill.

Within the classroom itself children enjoy living with their own handiwork. Their most artistic drawings, modeling, sewing and paper cutting are of absorbing interest not only to them but to parents, supervisors and to boys and girls of other classes. Classes in drawing, sewing and cooking produce meritorious exhibits.

Exhibit cases in the modern school, and no school is modern without them, are a necessary adjunct to present day learning.

Closely associated with the exhibit case is the generous and well located arrangement of cork

This cheerful room with decorated walls creates a pleasant atmosphere for the pupils and helps to develop initiative and an impulse toward practical work.

bulletin board, which is divided into three sections and is placed along the corridor wall on a level with the pupil's eye. On it groups of pupils arrange artistically grouped displays of postcards, news clippings and announcements. Separate bulletin boards provide for more group responsibility than one large display board and may be more desirably arranged.

More Variety Seen in Classrooms

As a necessary accompaniment to making the place and the tools of instruction in school buildings reflect and respond to the life outside, it follows that different rooms and different departments demand varying types of treatment. Up to recent years, and even to-day, classrooms of all sorts bear a decided resemblance to each other. Primary rooms in many cases adapt themselves as readily to sixth grade or high-school history. English or commercial rooms, except for size, are often mistaken for those of science or the manual arts. For the past decade some attempt has been made to overcome this deadening monotony. Kindergartens are beginning to look like kindergartens.

In new schools at Albion and Romeo, Mich., the modern idea in differentiating room design has been developed to an unusual degree. In primary rooms where pupils use tables and chairs, drawer space is limited and children's materials are large. Individual compartments are provided for each child. Little folks are here taught individual responsibility for the care of their own material and their own compartments. As they grow older this equipment gives way to reading cases, filing cabinets and other suitable furniture.

In the junior and senior high school, the English room suggests at first glance the purpose for which it was built. It is not necessary to see the posted "English Theme" to be entirely sure of its identity. Its bulletin equipment suggests familiarity with good literature. Its small stage, artistic arrangement of bulletin boards, book and reading cases all help to create an environment contributing to the cultivation and appreciation of good English.

In a similar way the social science room is modified to suit the teaching of good citizenship. Science departments closely associate experimental practice with book learning through the arrangement of equipment to encourage both activities in the same room.

Art rooms, music rooms, home economics departments have all become laboratories for purposeful activities.

Fostering the Child's Initiative

The real test of an architect ten years ago rested upon his ability to adapt a building to the school program. To-day we are far past that point. His test now rests upon his ability to develop a classroom design that contributes to the realization of the modern tendencies in education. He must know what these tendencies are and how to plan for them.

Progressive school buildings must be constructed to adapt themselves not only to the modern progressive viewpoint but to the future. They must be flexible. In the second place they must be appropriate to the laboratory type of classroom activity, and should foster initiative and creativeness in the individual child.

The Role of the Home Room in Fostering School Spirit

Every school should have a unit for promoting friendly rivalry in attainment and developing closer relationship between teacher and pupil

By DOROTHY M. CRANE, Director of Extracurricular Activities, Newport News High School, Newport News, Virginia

IN EVERY high school there must be a unit of administration, and where the old grouping by academic classes has been outgrown, the home room provides the most convenient and efficient division of the pupils into workable groups. Newport News High School, Newport News, Virginia, has approximately one thousand pupils, divided into thirty-three home rooms, composed of pupils of the same class but with no conscious grouping by intelligence, curricula or sex.

Fills Many Needs

At the beginning of the session of 1927-28, there were several definite problems to be solved in connection with the administration of pupil activities in general and the home room in particular. These were:

1. The need for development of self-expression among the pupils. In this was included the necessity of giving every pupil literary training, as the two literary societies, which had been adequate when the school was small, had been outgrown and had lost the enthusiastic support of the pupils.
2. The need for a convenient medium through which information could not only be given to the school, but could be emphasized and made vital to each pupil.
3. The need for a convenient unit for the development of friendly rivalry in attainment and for the fostering of school spirit.
4. The need for a closer relationship between teacher and pupil, with consequent individual guidance.

The previous semester time for home room and other pupil activities had been divided as follows: two forty-five minute assemblies a week, on Mondays and Thursdays; a fifteen-minute home room period in the morning, a five-minute home room period in the morning and a five-minute period in the afternoon, for the purpose of checking attendance, reading bulletins and conducting devotions; two literary societies meeting biweekly, with a small attendance of only those pupils who needed the training least.

The principal and home room director met and drew up a plan of programs for the semester. The first step was to gain the cooperation of every teacher. A faculty meeting was held at which the plan was outlined and sample programs were distributed. The general opinion was that two pupil assemblies a week could not be properly planned, so the Thursday assembly period was abandoned.

The activities program was put under way, then, with the following schedule: Monday, a forty-five minute assembly, planned four weeks in advance by a faculty-pupil committee; daily, twenty minutes in the home room, as outlined above; Thursday, a forty-five minute home room period. Once a month this was devoted to literary work, while debate clubs and public speaking courses were offered pupils desiring further training.

How the System Operates

Many new features have been added and are being added constantly as the need arises, but this account will deal with the system as it now operates. For the purpose of the present article only the forty-five minute home room program will be considered, and its administration and the subject matter of its programs will be discussed.

The home room was organized somewhat as follows: At the first meeting qualifications of officers were discussed and elections held. At first each room elected the following officers: president; vice-president, who is chairman of the program committee and his committee; secretary and treasurer; cheer leader, to lead songs and yells; chaplain, to lead devotional exercises.

Many rooms have since added home room editors of papers; a hostess; a housekeeper; a librarian; committees on home room reports, athletics and social service.

The "discussion" program is given three times monthly. This program is written by the home room director, who is given a free period daily for this work. It is prepared with the aid of books of reference, magazines and manuals. It is given to the principal on Monday morning for his approval. He turns it over to the commercial department to be mimeographed. Four copies are given to each home room teacher on Friday. These are given to the president, vice-president, program committee and teacher. The program committee meets on Monday, and decides who is to preside and studies the program.

Literary Program Given Monthly

The literary program is given once a month. This program is prepared one month in advance by the public speaking class. It is mimeographed and distributed. The program committee assigns parts and posts the program. Each pupil is required to appear once a semester.

No previous preparation is required for the "discussion" program. The presiding officer presents the topic for discussion. When the pupils have contributed all they can, he and other members of the committee who have read the program, supplement the discussion.

The literary program is conducted in the manner of the usual literary society. In order to stimulate interest two "visiting" days are held, when half the rooms visit the other half. Especially good numbers are repeated in the school assembly, and credit is given the home room.

With regard to the checking of results, a committee, composed of the principal, assistant principal, head of the English department and home room director, visits the rooms each week. Each visitor is provided with a printed form for reporting on the conduct and interest of the groups. These reports are filed.

The secretary for the home room keeps one set of minutes and turns in the other to the office. These are typed and given to the principal and home room director, who are urged to make suggestions for programs.

Report Prepared Each Month

The teacher hands in a printed card giving a report on the literary program, noting any especially good or poor numbers. At the end of each month, a committee turns in a report on room attendance, punctuality, scholarship, parents' attendance upon patrons' league and pupils' participation in school activities. This is prepared on a printed form.

The visiting committee meets and grades each room as follows:

1. Ten per cent on attendance. A room having 100 per cent gets 10; 99 per cent, 9; 98 per cent, 8; 90 per cent or below means zero.
2. Ten per cent on punctuality. No tardy marks rates 10; 1, 9; 2, 8. Ten tardy marks or more means zero.
3. Twenty per cent on scholarship. The room committee reports the percentage of A's and B's received in proportion to all the grades of the pupils. The highest room gets 20, the next 19, the next 18, the lowest rooms getting zero.
4. Five per cent on patrons' league. The committee reports the percentage of parents attending the league. The highest gets 5, the next 4, the others getting zero.
5. Fifteen per cent on activities. From the room committee's report upon the number participating in athletics, dramatics, music, journalism, pupil council and debate club, the grading committee gives the room a percentage. This is done by comparing the freshman rooms with each other and senior rooms with each other.
6. Ten per cent on order. This is graded by the faculty committee upon consideration of the order of the room at all times.
7. Thirty per cent on home room programs. The faculty committee judges this after careful consideration of the written reports for the month.

The detailed reports of each room's grade and the comparative standing of the rooms are published in the school paper and on the bulletin boards.

Program for Freshmen

For the incoming freshman, the programs deal with orientation, and each semester a book, "Your School and You," by Bliss, is issued, which covers the following subjects: organization; school songs and yells (school cheer leaders as visitors); school activities; "know your school" (requirements, rules and curricula); how to study; our school and others (relation to town); manners and conduct in school; manners and conduct in public places; manners and conduct at home; taking stock (New Year); how to review for examinations; success in school and life.

For all the other classes the topics covered include: organization; parliamentary law; how to study (two meetings, including a questionnaire on study habits); manners and conduct (three meetings, including a questionnaire); special days—Columbus Day, Thanksgiving Day and Lee's Birthday; "know your school;" fundamental purposes of the high school (four lessons).

For the literary programs an attempt is made to build the program around one central theme,

such as Columbus Day; Thanksgiving Day; Christmas; school activities; good resolutions, and great men.

The literary programs always contain several debate and speech topics so that a selection may be made.

Every program contains, in addition to the things mentioned above, time for home room business, yells and songs, discussion of school problems and discussion of school activities.

Except for the "discussion" programs for the freshmen rooms, the programs are purely suggestive. Any group may discard or change them, providing only that it substitutes something of real worth. We have had short plays, mock trials, work on a school handbook and many other original projects.

As the year draws to a close, what do we feel we have gained? Undoubtedly we have increased our school spirit, we have developed rivalry in attainment and we have aroused interest in many projects and activities. Our pupils are better poised, they speak with greater ease and they are learning not only how to put their thoughts into words, but also that they can do so without embarrassment.

Cooperation Between Principal and Supervisor

It is increasingly evident that even the most competent secondary-school principal is incapable of dealing adequately with all the phases of secondary education. To meet the situation, specialists in English, vocational education, and other fields are being employed to take over the work of supervision from the high-school principal. Yet the principal is urged on all sides to spend more and more time in unifying the instruction in his school. It appears that it is the specialist's work to take the child apart and the principal's to put him together again.

Both principal and specialist have distorted views of secondary education. Each is needed to supplement the work of the other. In case they disagree, who shall resolve the conflict between them? In the past, the man with the higher rank has won out.

The relationship between principal and specialist should be a cooperative one between equals in rank. Either should be able to take a question to higher authority without going over the other's head.

If principal and specialist are to be coordinate, a clear-cut division of function must exist. The principal should be responsible for coordinating the instruction in all special fields. The specialist should bring instruction in his field into harmony with the general objectives agreed upon. Principal and specialist should be jointly responsible for defining the place of the special field in the total offering.

Organizing for Educational Guidance

The purpose of educational guidance is not to tell a pupil what subject he should take and what higher school he should prepare himself for, but rather to help him to know himself and to know the educational opportunities that are available to him and then to know upon what principles to adapt himself to his opportunities in the light of his interests, abilities and ambitions.

Educational guidance is the function of every teacher, and every school should be organized to promote it consciously. Some of the most effective means of organizing a school for the effective exercise of educational guidance are the following:

1. Establishing a realization of the value and meaning of educational guidance in the mind of each teacher.
2. Provision for supervised study.
3. Promotion by subject.
4. A schedule of studies offering an opportunity for selection and exploration under supervision.
5. A plan for testing and studying individuals for educability, aptitudes and interests, followed by a plan of remedial teaching.
6. Special provision for dominant types intellectually, for example, retarded or accelerated.

The High-School Development of Music Courses

In the development of music courses in high school a sharp distinction must be made between curricular and extracurricular music. Those of the curricular type must be included in the regular high-school program on precisely the same basis as all other subjects. The courses adopted for university entrance credit by the University of Wisconsin are: history and appreciation of music; choral music; theory and harmony; orchestra; band; applied music under teachers accredited by the state department of education. The university prescribes the general content and conditions under which these courses must be given if they are offered for credit.

Interscholastic boating is a popular sport and periodic races between six and eight-oared boats afford much pleasure. American boating has been advanced by the colleges, whose crews represent the most finished oarsmanship and hold many records for the distances and conditions in which they compete.

How Boys Are Benefited by a Military Regime

By M. V. O'SHEA, Professor of Education, University of Wisconsin

MUCH of a boy's daily program in a military school is regulated by a fixed schedule. He arises in the morning at a definite hour, usually six o'clock or thereabouts, when reveille is sounded. He is allowed a few minutes to get ready for drill or calisthenics. At the end of that period he must respond to roll call.

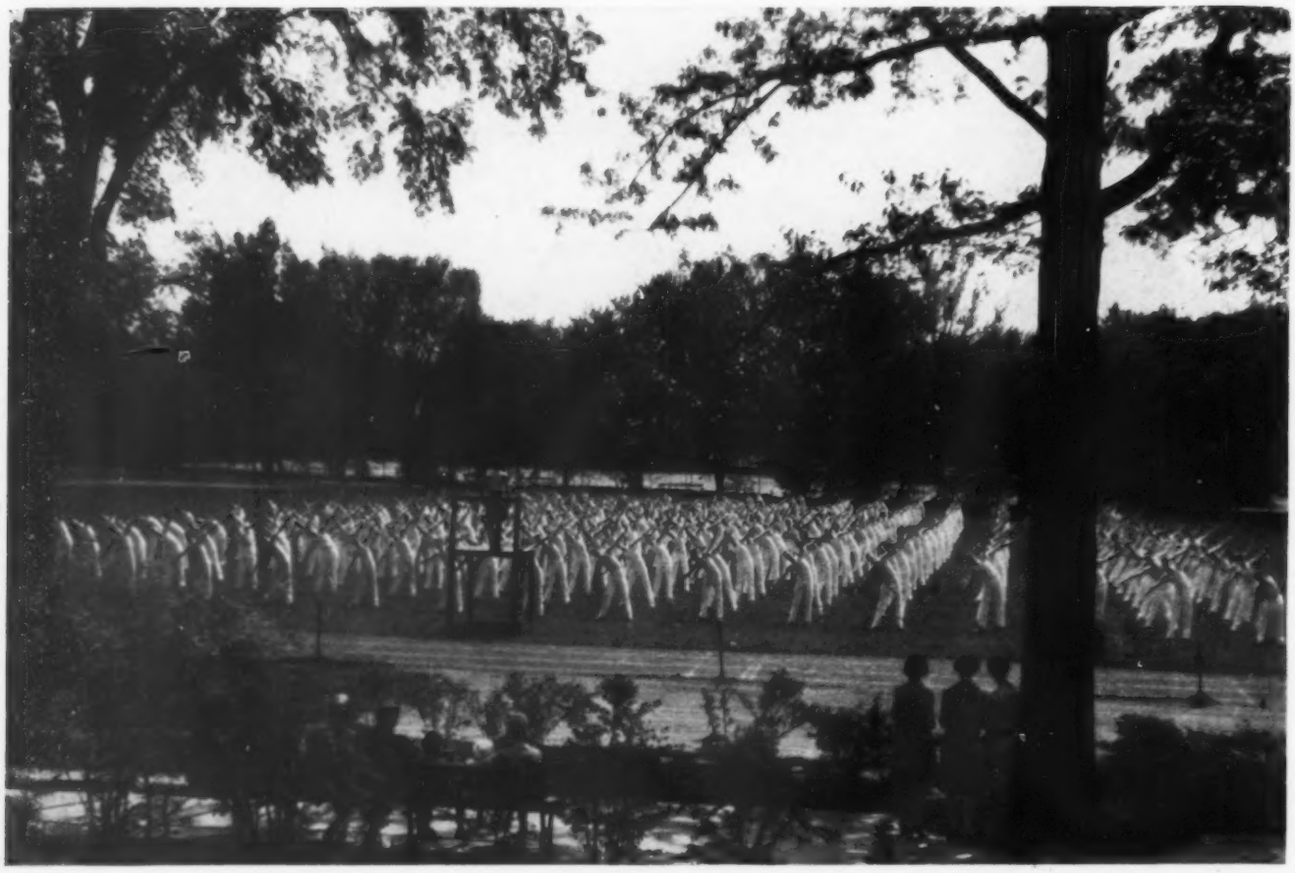
How the Day Is Spent

After his setting-up exercises, he takes a cold shower. He is allowed a few minutes to get into his uniform. He may then have some more drill or calisthenics, after which he will march to breakfast. He stands at his place until the command to be seated is given. After the period allowed for breakfast, he comes to attention upon command and listens to the orders for the day. He arises from the table upon command and marches out in order with his group. He is then given ten or fifteen minutes' freedom, after which he falls into line and marches to his classroom for study or recitation. At the conclusion of the recitation he arises upon command and marches to his next class or his next duty. And so he goes on until taps is sounded at 9:30 p.m., when his lights must go out. Only for two or three hours during the day is he at leisure to go about the campus informally.

Under the military regime, everything must be done exactly on time and according to fixed standards. The uniforms must all be clean, every button must be in place and the clothes must fit the cadet acceptably, according to military style. Hands and face must be clean, hair combed, shoes brushed and linen immaculate. If there is any neglect or deficiency in these respects, a definite penalty is assigned. No cadet ever "talks back" in regard to any of these matters. The superior officer decides without debate whether or not a cadet has conformed to the requirements. If the cadet is ten seconds behind time at any exercise; if he shows the slightest discourtesy toward any officer; if he becomes negligent or indifferent either in the classroom or in his military exercises, he is penalized. He cannot interfere with the rights or activities of any other cadet or he will suffer for it. If he thinks he has been dealt with unjustly by an officer he may appeal to a higher officer, and his case may be heard. But it is a fundamental principle of a military school that a cadet is under the governance of his immediate superior.

Would this sort of regimen be beneficial for boys in the public schools who take liberties with their teachers, who are often tardy and absent from their work, who show disrespect for teach-

Above is shown the Black Horse Troop at Culver Military Academy, Culver, Ind.; below, mass calisthenics on the oval, a daily exercise in the open, given in the middle of the forenoon academic periods and sending the cadets back to classrooms with blood circulating and minds refreshed.



ers as far as they dare, who "talk back" when they are criticized for misconduct? Yes, such boys would be immensely benefited by a military regimen. To be brought under a regime of fair, just discipline from which there is no possible escape is just what such boys need. They must conform to rules or take the consequences. The typical boy in a modern home may argue for half an hour with his parents before getting out of bed. He may start five minutes late to school day after day. He may fail to spend any time in studying his lessons out of school hours. His parents may ask him to do this or that, and what they say may pass in at one ear and out at the other without producing any effect on his behavior. The number of such boys is increasing in modern life, unfortunately.

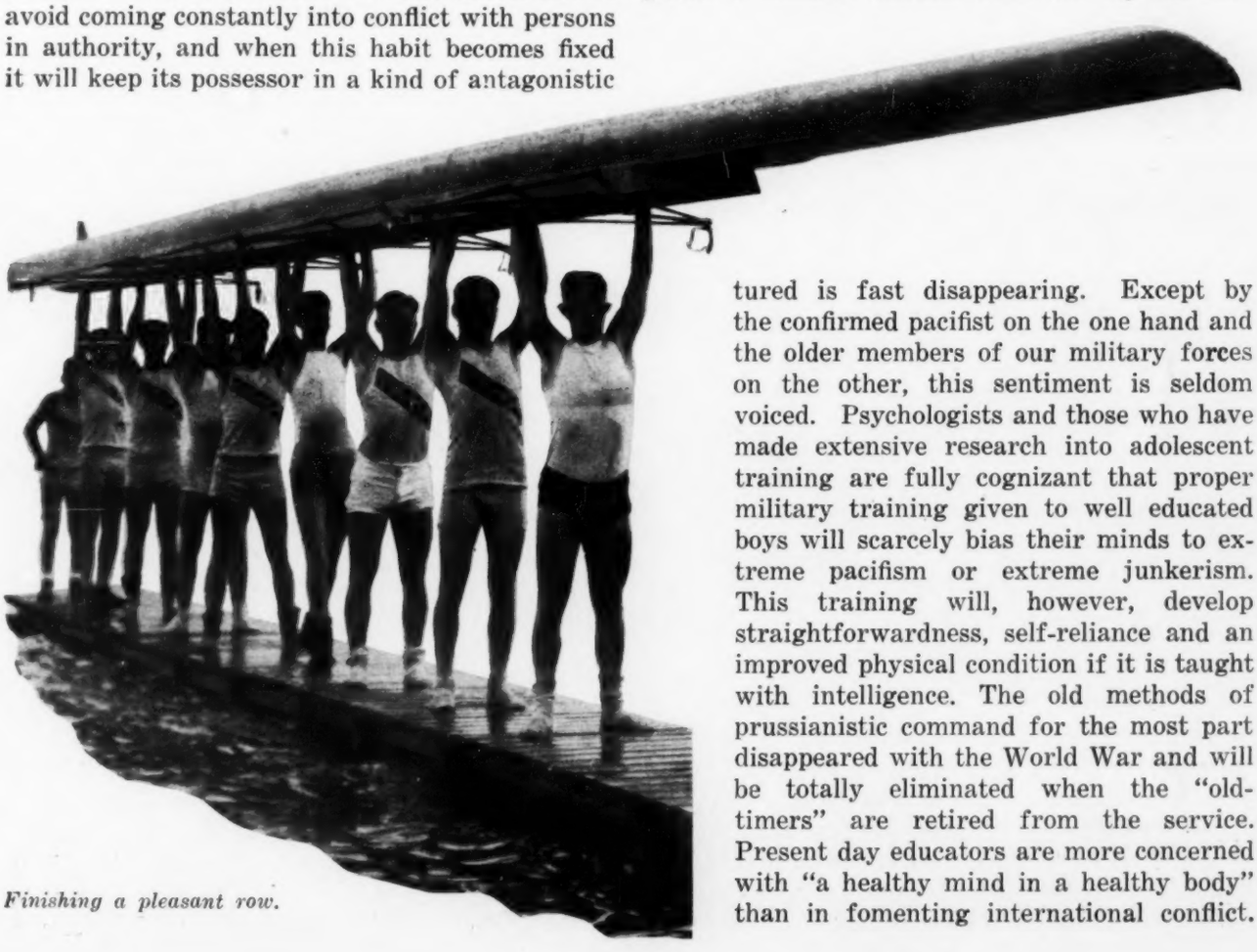
The Nonconformist Is Unpopular

The best thing that can happen to a boy is to get into the habit early of conforming readily and without question to the necessary rules and regulations of the home and the school. Unless he does this he will keep everybody around him in hot water much of the time, and he will be unhappy himself because inevitably he will be censured. A nonconformist in home or school cannot avoid coming constantly into conflict with persons in authority, and when this habit becomes fixed it will keep its possessor in a kind of antagonistic and belligerent attitude toward those about him. One never finds a boy like this who is a really cheerful, good-natured and agreeable fellow and such a one is not popular with his classmates.

Discipline Benefits Boys

Of course, proper training in the early years usually prevents a boy from developing a nonconformist disposition. But the conditions in modern life often make it difficult to train a child so that he will readily arrange his daily program in accordance with the regulations of home and school. For this reason, the military school becomes a necessity for some boys. It is a rigorous regime, and many parents are too tender to subject their boys to it, and so they let them continue to be disobedient, disrespectful and tantalizing until they become a nuisance to themselves and an irritation to others. Taking a boy's entire life into account, it is better for him to be under discipline for four or five years and learn to conform to necessary authority than to go on enjoying his freedom, which in his case amounts to license, until he arouses the hostility and animosity of everyone around him.

The old theory that a military training will engender a militant attitude when the boy has matured is fast disappearing. Except by the confirmed pacifist on the one hand and the older members of our military forces on the other, this sentiment is seldom voiced. Psychologists and those who have made extensive research into adolescent training are fully cognizant that proper military training given to well educated boys will scarcely bias their minds to extreme pacifism or extreme junkerism. This training will, however, develop straightforwardness, self-reliance and an improved physical condition if it is taught with intelligence. The old methods of prussianistic command for the most part disappeared with the World War and will be totally eliminated when the "old-timers" are retired from the service. Present day educators are more concerned with "a healthy mind in a healthy body" than in fomenting international conflict.



Finishing a pleasant row.

The Activities of the American Federation of Teachers

Because of its possible consequences, public attention was directed to the Seattle case and this statement by one of those concerned proves quite illuminating

By E. SHORROCK, President, Board of School Directors, Seattle, Wash.

IN NOVEMBER, 1927, a group of high-school teachers of Seattle formed Seattle High-School Chapter No. 200 of the American Federation of Teachers (this federation being affiliated with the American Federation of Labor).

This step was apparently taken because the school board had refused to consider a new salary schedule proposed by the High-School Teachers' League, until the budget was considered in the following March, and then only in connection with new schedules proposed at the same time by the Grade Teachers' Club and other groups of principals and teachers. By this step the teachers hoped to secure the support of the Central Labor Council of Seattle in their demands, which eventually included a demand that the question of salary increase be submitted to popular vote at the next election.

Interference With Schools Noted

While apprehensive of the effect that the formation of such an organization affiliated with and subject to an outside body might have upon the schools, and believing that it was unnecessary, as the existing organizations of teachers had always been free to meet with the board, the latter took no cognizance of it until April, 1928, after the adoption of a new single salary schedule providing increases for all classes of principals and teachers. The superintendent then reported that its activities had become so pronounced as to interfere seriously with the operation of the schools. These activities included persuasion and threats to secure members for the chapter, the membership being only about one-fourth of the high-school teaching force and not including a single teacher in the grade schools.

The representations made to teachers by various members of the chapter were to the effect that by the help of the labor unions it would undoubtedly secure control of the school board and would then be able to reward its own members and to secure the dismissal of others.

Articles in the April issue of the *American Teacher* (the official organ of the American Federation of Teachers) as well as the legislative report of the executive committee of the American Federation of Teachers, set forth the aims of the federation and of the new chapter, showing that they were distinctly selfish, not even pretending to be of benefit to the public or to the children of the schools, but demanding special privileges for the members not possessed by any other class of citizens. In particular, the articles in the *American Teacher* did not hesitate to misrepresent the attitude of the Seattle School Board over a period of years. The majority of the teachers appear to have resented the chapter's methods, and by their abstinence from membership have, in fact, condemned the policy; but the board felt obliged to give the situation serious consideration and concluded that it must either eliminate the disturbers from the schools as far as they could be ascertained, or forbid membership in the chapter entirely. The latter course was finally adopted.

Board Establishes New Rule

It will be observed that this action was not against the chapter (or union) as such, but against its activities, which, in the judgment of the superintendent and of all the high-school principals, had become very detrimental to school operation, and on the ground that no organization, under whatever name, could be permitted to adopt such methods.

The statement formally adopted by the board by unanimous vote, and containing the new rule, is as follows:

On November 22, 1927, it was announced in the press that a branch of the American Federation of Teachers, known as Local 200, had been organized by the high-school teachers of Seattle. It has since been explained in an article appearing in the April, 1928, issue of the *American Teacher*, the official organ of the American Federation of Teachers, that this was the culmination of a series of meetings, some attended by organ-

izers of the federation, and, finally, a referendum ballot among high-school teachers.

When the announcement of the inauguration of this organization appeared the board withheld judgment as to the effect of the new organization on the schools. Recently, however, the conduct of the leaders and published statements of the organization have disclosed aims and methods that the board regards as conflicting with the best interests of the schools. It is evident from the activities of the organization, and also from statements of its officials and leaders, and from its printed literature, that in order to accomplish their ends it is their purpose to secure control of the board. In other words, if the organization's purpose and ends are attained, it will mean a determination of school policies and affairs by a class organization instead of by the duly elected and appointed representatives of the people.

Admitting the right of employees to advocate and attempt to secure advantages for themselves, it must also be admitted that no organization should be tolerated in the schools when it tends to disrupt the orderly carrying on of the work as administered by the duly constituted authorities, and follows methods prejudicial to the best interests of the schools.

Organization Secretly Promoted

The board regards the following acts of the organization as indicating aims and methods prejudicial to the best interests of the schools:

1. The promotion of the organization has been carried on in secrecy, not even its membership having been disclosed. The contradiction is presented of an organization claiming to be operating under the slogan "Democracy in Education—Education for Democracy," attempting to shroud its operations in secrecy. Such conduct is obviously un-American and out of harmony with the public schools, the most truly American of all our institutions.

2. A campaign for membership in the organization has been carried on in such a manner as to embarrass and even to coerce the teachers who are not in sympathy with the organization. Efforts have been made, through the creation of a spirit of discontent, to enlist other groups of teachers into membership in the American Federation of Teachers.

3. Under the guise of creating an agency for closer cooperation with school administrative authorities, this organization advocates what in effect would be the replacement of constituted authority by the American Federation of Teachers.

The board, as well as other administrative divisions of the schools, has always been willing to advise with representative groups of teachers. The High-School Teachers' League, Seattle Grade Club, Principals' Association, Association of Intermediate-School Teachers, have conferred with the board on matters of importance to the various groups, and have met with the superintendent of schools for like purpose.

To avoid a divided allegiance and to prevent a disruption of our school organization the board has, after much thought and conference with the educational department, decided not to employ teachers who are members of the American Federation of Teachers, in which decision the superintendent and his staff, and high-school principals as well, concur. We do not know who these members are, and are therefore electing the high-school teachers subject to their signing a contract that contains the declaration below.

Resolution Is Adopted

Based upon the report herewith presented, the committee further recommends that the following resolution be adopted:

> *Resolved*, That no person be employed hereafter, or continued in the employ of the district as a teacher while a member of the American Federation of Teachers, or any local thereof; and that before any election shall be considered binding such teacher shall sign a declaration to the following effect:
>
> "I hereby declare that I am not a member of the American Federation of Teachers, or any local thereof, and will not become a member during the term of this contract."

This statement, with the rule, was adopted on May 4, 1928, with all members present and voting "Aye." On the following day suit was begun by the chapter, represented by the official attorney for the Central Labor Council, to secure abolition of the rule, and an injunction in the meantime against its being made a part of the contract then about to be submitted in the usual course to the teachers desiring reelection. The court issued a temporary injunction but on the hearing subsequently given dissolved it and denied the demand that the rule be abolished. An appeal was immediately taken by the chapter to the Supreme Court of Oregon, which refused to reinstate the injunction, leaving the main question to be decided on its merits by that court, in due course.

The position at present therefore is that the rule has been made a part of the new contract, and all high-school teachers elected for the ensuing year have accepted it.

The decision of the Superior Court sustained the right of the school board to impose such con-

ditions of employment as it believed to be in the interests of the schools, using the following language:

"To hold that the defendant school district must, by a mandate of this court, enter into a contract, not of its own volition, with a certain individual or individuals to teach in the public schools of the City of Seattle for the ensuing year would violate the fundamental principle of the law of contract.

"I rest my decision on the following grounds:

"*First:* The vocation of one teaching in the public schools is of a public character, under the absolute control of the state and its governmental agency, the defendant board of directors, and it is for the latter to determine and prescribe the conditions under which those whom it selects may teach in said schools.

"*Second:* It is not the prerogative of the court to pass judgment upon the merits or demerits, wisdom or lack of wisdom of matters which by statute are left to the discretion of those constituting one of the governmental agencies of the state.

"*Third:* The adoption and enforcement of the resolution in question are within the powers expressly delegated to the defendant board of directors by the legislature, and contravenes neither constitutional nor statutory enactment.

"For which reasons, the restraining order heretofore issued in this cause will be, and the same hereby is dissolved and the action dismissed."

What the Teachers Demand

Apart from the legal aspect of the case, the question remains as to how far teachers should claim privileges not possessed by any other class of citizens. According to the *American Teacher*, their demands are:

1. Employment to be permanent, except upon trial by a body largely consisting of their own members.
2. Determination by them of the field and scope of their employment. They demand the right to determine the subjects to be taught in the schools, which belong to the public as a whole.
3. One year's leave of absence for every seven years of service.
4. Life pensions, to be paid from general taxation.
5. Control of the membership of the school board in their own interests as a class, with the cooperation of labor unions.
6. That as to salaries, important facts, such as length of the school year, lack of merit system, be ignored in all comparisons.

The question, moreover, is not simply that of membership of individual teachers in the union or other outside organization, but the effect such membership must have (especially when it is aggressive and political, as now contemplated) upon the minds of pupils. Membership in a union has no necessary effect upon the average person's daily duties, but teachers are not engaged in mechanical operations; they deal with the history of political movements and opinions, and it is reasonable to demand impartiality of attitude and activity as a condition of such employment which involves severance from active connection with or domination by any political body.

If this is a burdensome restriction it is nevertheless an essential one, and those who object to it should seek other employment. Teachers are public servants, and the conditions of their employment must be determined with especial regard to the children and to the citizens, in whose interests and at whose expense schools are built and maintained.

Building Up Teaching Morale

Courses of study reflect child needs best when they are the product of the cooperative effort of teachers and supervisors. Curriculum building has proved one of the best means yet found for training teachers in service. It helps to train each teacher to study the problems of the individual child. It encourages teachers to seek a new content in education and to vitalize the old content by more effective forms of organization.

Just as the supervision of children has been made more constructive by the modern educational advance so has the supervision of teaching become a profession in itself. The development of the departments within the National Education Association suggests this growth. The Department of Secondary-School Principals is larger than the whole association a few years ago. It is a far cry from the so-called early supervision which consisted of an occasional visit to the school by the district trustees, to the highly trained, sympathetic and efficient supervision of the modern school principal and his staff.

Good supervision has definite, well understood standards and a well organized program. It is essentially a cooperative procedure. It supplies the means that enable teachers to live up to the set standards and to carry out the authorized program.

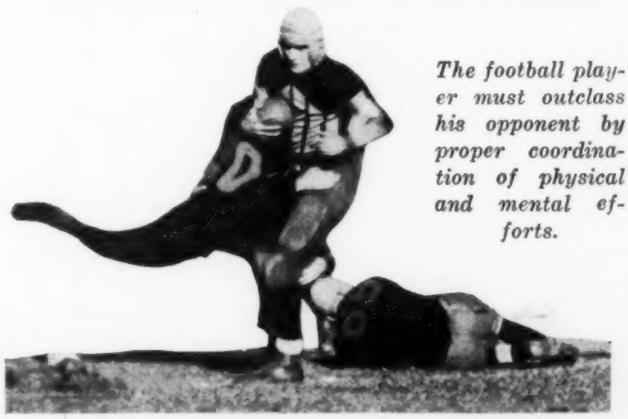
What teachers need is inspirational leadership. Much that is superimposed is valueless. Encouragement and suggestions together with helpful demonstrations will build up a teaching morale worthy of the name.

Are College Athletes Low in Scholarly Attainments?

TRADITION has it that college athletics weaken the intellectual spirit and lower the academic standing of the undergraduates. Although such criticism has been prevalent during the past few years, and in spite of the deprecating resolutions adopted by the American Association of College and University Professors in 1926, yet the spirit of college athletics has never flagged. In fact, a reasonable balance between scholastic pursuits and other student interests—among which athletics rank first—seems to be asserting itself.

No longer can it be said that the ideals of college athletics and of Phi Beta Kappa are in opposition. Sport writers are still singing the praises of the Dartmouth Class of 1924, which could have put on the football field a team picked from the varsity and second squads, each playing his regular position, and all members of Phi Beta Kappa. The 1928 University of Wisconsin commencement exercises saw especial honors bestowed not only upon Col. Charles A. Lindbergh but also upon Louis Behr, Rockford, Ill., because of his excellent scholastic record along with his unexcelled athletic achievements.

In the twenty-second annual report of the Carnegie Foundation for the Advancement of Teaching, there appears a section devoted to college athletics and scholarship. Forty-four institutions participated in submitting data for the study. The most interesting phase of the report centered upon a comparison of athletes *vs.* nonathletes. One typical participating institution was Columbia College, Dubuque, Iowa. From the records and data given by this school the committee derived the following conclusions: (1) Members who participated in sport and those who did not, appear to be of about the same intelligence; (2) on the basis of course grades, the athletes fell below the nonathletes; (3) the athletes tended to remain longer in college; (4) fewer athletes received degrees than nonathletes; (5) more athletes incurred probation than nonathletes; (6) athletes tended to carry lighter programs than nonathletes.



The football player must outclass his opponent by proper coordination of physical and mental efforts.

Thus, the report from Columbia College was not favorable to athletics. However, the men who had charge of this work were not satisfied that the returns were conclusive or even indicative that college athletes were consistently low in scholarly attainments. With the hope of obtaining more accurate results a wider investigation was begun.

At the request of Howard J. Savage, staff member of the Carnegie Foundation, and upon the endorsement of President Silas Evans, Ripon College, Ripon, Wis., the Department of Education volunteered to carry on the study involving former students at Ripon College. In April, 1928, work was begun upon the official records in the college office.

Following the procedure of the former investigations by the Carnegie Foundation, the Ripon committee adopted two working definitions as follows: (1) An athlete is a male undergraduate mentioned in the yearbook, the *Crimson*, as having been a member of a varsity or freshmen team even if he was not awarded insignia. (2) A nonathlete is any other male undergraduate.

The only sports in which consistent available data could be formulated for Ripon College were

Perfect health is required in the "dash man." Healthy students are better students.

football, basket ball and track. The period for which the data were compiled included the school years of 1922-23; 1923-24; 1924-25; 1925-26.

Intelligence or psychological test scores were not available for these years. However, from all indications the students involved were a normal group.

The grades achieved by the two groups were recorded and interpreted according to the system shown in Table I.

TABLE I—GRADES AND THEIR NUMERICAL EQUIVALENTS

Grade	*Numerical Equivalent*
A+	12
A	11
A−	10
B+	9
B	8
B−	7
C+	6
C	5
C−	4
D+	3
D	2
D−	1
Z (Failure)	0

The following special rulings were made:

1. In the case of two grades being recorded, one the result of a make-up examination, the grade assigned in that examination superseded the failing course grade previously assigned.

2. If a man received a quarter year mark in a full year course in which he was regularly enrolled, but did not continue the course further, no grade assigned to him in that course was used.

3. In computing combined averages, work done in years spent at other colleges was included when it counted for a degree at Ripon and bore upon eligibility for participation in athletics.

Numerically interpreted, as in Table II, this gave the athletes an average of only 5.5, while the nonathletes received 6. This difference in average scholarship is too small to be significant.

TABLE III—FOUR-YEAR AVERAGE GRADES BY SPORTS

Sport	*Number of Athletes*	*Average Grade*	*Numerical Grade*
Football . . .	112	C−	4
Basket ball .	41	B−	7
Track	93	C+	6

The variations shown in Table III are again slight. Ripon basket ball men seem to be somewhat above the other sports. Football rather consistently trails the group in most of the investigations, due perhaps to the nature of the game, the exceptionally scholastic students not being attracted to it.

In regard to probation, the few facts available are shown in Table IV. In this respect, fewer

TABLE II—AVERAGE GRADES

Year	*Number of Athletes*	*Average*	*Number of Nonathletes*	*Average*
1922-23	70	C	89	C+
1923-24	57	C+	87	B—
1924-25	60	B—	94	C
1925-26	66	C	71	C+

athletes were on probation, a fact that speaks well for them. It might be added that these data included both freshmen and varsity squads. It is likely that the eligibility rule affected these averages.

Concerning dropping out from college the observations made are shown in Table V. As no attempt was made to account for the withdrawals, it is possible that scholastic difficulties may not have been the chief reason for withdrawal. Nevertheless, it seems evident that the athletes were most eager to receive a degree.

No satisfactory criteria could be found by which to judge the hard and easy courses at Ripon College, therefore this matter was not taken into consideration. At the present time scores on general group intelligence tests would be available, but for the four years involved in this study no such comparative data could be found.

Records on other sports, such as tennis and wrestling, would have added interest to the study, but again, consistent data were lacking.

On the whole, there seems to be no justification for the assumption that athletes differ greatly in scholastic ability from other college men.

Of the three sports considered, the scholastic penalty seems to rest most heavily upon football. Some insist that football attracts the individual who rates high in strength almost regardless of mental capacity, and that this explains its posi-

Baseball requires clear thinking and quick response. It develops the quality of alertness.

TABLE IV—NUMBER ON PROBATION

Year	*Athletes*	*Number on Probation*	*Nonathletes*	*Number on Probation*
1922-23	70	6	89	17
1923-24	57	5	87	12
1924-25	60	7	94	16
1925-26	66	2	71	11
		Average 5		Average 14

TABLE V—WITHDRAWAL FROM COLLEGE

Year	*Athletes*	*Number Withdrawn*	*Non-athletes*	*Number Withdrawn*
1922-23	70	3	89	6
1923-24	57	4	87	5
1924-25	60	2	94	4
1925-26	66	5	71	5
		Total 14		Total 20

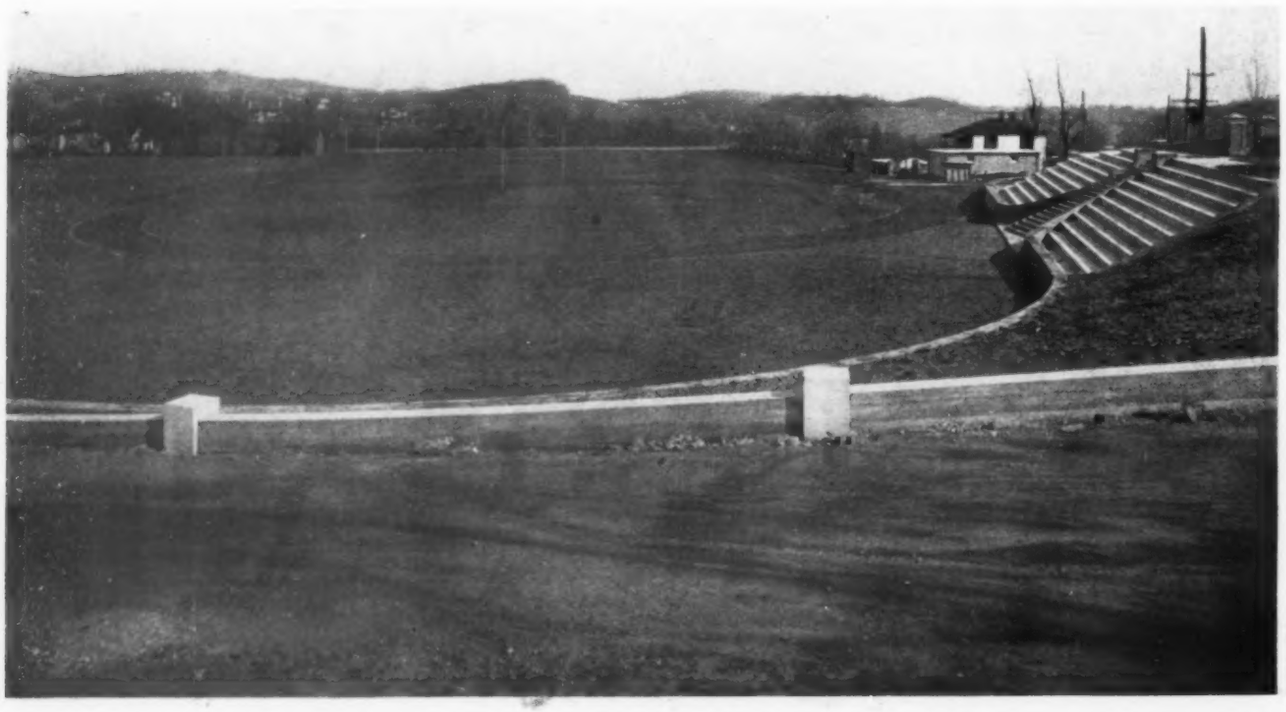
tion at the bottom of the list. Others attribute the inferior position of football to the fact that it involves severe training and prolonged drill, taxing the strength and the time of the men more than other sports. Basket ball, with its premium on quick thinking and fine individual and collective judgment, stands high despite the hard training it demands.

From the study of available records, it was evident that no favoritism was shown to athletes by the faculty. Careful make-up examinations and consistent teaching were shown throughout.

The holding power of college athletics is noticeable.

The nonathletes tend to carry heavier programs than the athletes. This is to be expected, for the drain on time and energy was tremendously heavy for the latter group.

The slight superiority in scholastic achievement of the nonathletes is no doubt offset by the higher values received in competitive sports, which tend to qualify the athletes for leadership and service to their fellow students and to the community in which they will become citizens.



Athletic field at Staunton Military Academy, Staunton, Va.

How Room Space May Be Assigned in an Elementary School

A discussion of the factors that determine the kinds of room space that are contained in modern elementary-school buildings of different types and sizes

By B. F. PITTENGER, School of Education, University of Texas

THIS paper is based upon an analysis of seventy elementary-school floor plans published in the *American School Board Journal* from January, 1921, to December, 1925. The plans represent buildings of various sizes, from five to eighty-one rooms, in different sections of the United States, assigned to diversified subjects and activities and of varying grade ranges and types of organization. The main common feature is that all are intended to house only elementary schools.

The method of study has been to list, according to the classifications appearing in the tables that are embodied in this article, the different rooms provided for in each plan and their floor placement. The classification has been made to parallel as closely as possible that appearing in my study of space provisions in junior high-school floor plans.[1] The purpose has been to determine just what kinds of room space are contained in modern elementary-school buildings of different types and sizes, and their interrelations as shown by their floor placement. Such information is useful in connection with two fundamental operations in the planning of a new school building, namely, in the construction of a room list and in the laying out of a floor plan.

Space Provisions Tabulated

The first step in the study was to tabulate the space provisions in each plan separately, both as to kind of space and as to floor placement. Because of its size, this original tabulation is not included in this report.[2] Such important facts as appear therein, but are perforce omitted from the summary tables, are reviewed in the verbal discussion.

With regard to the kinds of space provided the discussion is based upon Table I, supplemented by the individual plan tabulation mentioned above. In Table I the plans have been arranged in three groups according to size, the first group of 23 plans ranging from one of 5 to one of 16 rooms; the second, of 24 plans, from 17 to 36 rooms; the third, of 23 plans, from 38 to 81 rooms. The table also contains a summary of the total and percentage of frequency of each type of space in the entire group of plans.

Only Classrooms Are in Every Plan

Taking the plans as a whole, the following space provisions appear in half or more of the plans, in the order of frequency listed: classrooms, toilets, administration rooms, storage, teachers' rest rooms, assembly-auditorium and domestic arts room. Only classrooms are found in every plan, and only classrooms, toilets and administration rooms in more than three-fourths of the plans. Besides the space provisions listed above, the following are found in more than 30 per cent: kindergarten, arts and crafts room, library, locker rooms and health service room. Other kinds of space are relatively infrequent. Thus nature study or science is provided for in only 10 per cent of the plans, drawing in less than 19 per cent, music in 7 per cent, a gymnasium and playroom in less than 30 per cent each. However, gymnasiums and playrooms are not ordinarily found in the same plan, so that approximately 50 per cent make one or the other provision for indoor physical activity.

Insofar, then, as these seventy plans are representative, the chances are even or better that a modern elementary-school building will contain class or grade rooms, toilets, an administration room, storage, a teachers' rest room, an assembly-auditorium, a domestic arts room and a gymnasium or playroom. No other type of space herein considered has as much as an even chance of appearing in the plan.

There is, however, a distinct relationship between the kinds of space provided and the size, in number of rooms, of the contemplated building.

[1] The Nations Schools, June and July, 1928.

[2] For the making of this tabulation the writer is indebted to three of his advanced students—Julia L. Vivian, I. J. Deck and C. K. Chamberlain.

In the smallest plans, those of from 5 to 16 rooms, only classrooms and toilets are found in half or more of the plans, with an administration room running close. In the medium sized plans, those of from 17 to 36 rooms, the list is expanded to include arts and crafts, domestic arts, teachers' rest room, assembly-auditorium, storage and a gymnasium or playroom. In the largest plans, those of from 38 to 81 rooms, it is further expanded to include a kindergarten, a health service room and locker and shower rooms, with separate space for a library running close.

But when one inspects the tabulations of space in the different individual plans, wide differences in each group become apparent. For example, three of the smallest plans contain only class-

TABLE I—SPACE PROVISIONS IN ELEMENTARY-SCHOOL BUILDING PLANS

Space Provisions	*In Classified Buildings*			*In All Buildings*	
	23 Plans Smallest (5-16 rooms)	*24 Plans Medium-Sized (17-36 rooms)*	*23 Plans Largest (38-81 rooms)*	*Number*	*Per cent*
1. Kindergartens	4	10	13	27	38.6
2. Classrooms	23	24	23	70	100.0
3. Lecture rooms	..	2	5	7	10.0
4. Recitation rooms	1	1	5	7	10.0
5. Nature study and science	..	3	4	7	10.0
6. Vocational rooms	6	14	19	39	55.9
(a) Gen'l arts and crafts	1	12	13	26	37.1
(b) Shops	..	1	10	11	15.7
(1) General	..	..	2	2	2.9
(2) Woodwork	..	..	4	4	5.7
(3) Machine	..	1	2	3	4.3
(4) Printing	..	..	3	3	4.3
(5) Binding and repair	..	..	1	1	1.4
(c) Domestic arts	5	13	17	35	50.0
(1) General	2	11	10	23	32.9
(2) Sewing	..	3	10	13	18.6
(3) Fitting	..	1	2	3	4.3
(4) Cooking	3	2	10	15	21.4
(5) Practice suite	1	3	8	12	17.1
(d) Commercial	1	1	1	3	4.3
7. Drawing rooms	..	3	10	13	18.6
(a) General	..	..	3	3	4.3
(b) Freehand	..	2	5	7	10.0
(c) Mechanical	..	1	5	6	8.6
8. Music rooms	..	..	5	5	7.1
9. Administration rooms	11	20	22	53	75.7
10. Teachers' rest rooms	9	15	18	42	60.0
11. Pupils' rest rooms	..	4	4	8	11.4
12. Gen'l service rooms	19	24	23	66	94.3
(a) Assembly-auditorium	10	14	13	37	52.9
(b) Auditorium-gynasium	..	4	5	9	12.9
(c) Classroom-auditorium	1	1	2	4	5.7
(d) Cafeteria	1	9	10	20	28.6
(e) Gymnasium	1	9	10	20	28.6
(f) Playrooms	4	4	8	16	22.9
(g) Health service	2	4	16	22	31.4
(h) Library	7	7	11	25	35.7
(i) Dressing rooms	3	8	9	20	28.6
13. Storage rooms	2	17	23	42	60.0
14. Toilet rooms	16	24	23	63	90.6
(a) Boys'	15	24	23	62	88.6
(b) Girls'	16	24	23	63	90.6
(c) Special	..	10	17	27	38.6
15. Swimming pool	..	..	4	4	5.7
16. Locker rooms	3	8	13	24	34.3
17. Attendant's room	..	2	7	9	12.9
18. Showers	1	3	14	18	25.7
(a) Boys'	..	2	12	14	20.0
(b) Girls'	1	1	10	12	17.1

rooms and assembly rooms (not even toilets additional); one contains, besides classrooms and toilets, two domestic arts rooms, a principal's office and a library; still another has a practice suite for home economics, a cafeteria, two playrooms and a library. These are but examples of the variations. Turning to the group of largest plans, we find variations ranging from one plan with only office, rest rooms, playrooms and storage, in addition to numerous classrooms and toilets, to another plan that contains almost every element of floor space listed in the table.

L. V. Koos, in 1919, published an analysis of the space provisions in 126 elementary-school plans set forth in the *American School Board Journal* from 1908 to 1917, inclusive. Table II offers a comparison of the frequency of major space provisions in Koos's study and in this one. To the extent that the plans covered in the two studies represent elementary-school planning in their respective periods, it appears that greater attention was given in the later than in the earlier period to the requirements of a diversified program. There is, to be sure, still place for Koos's comment that "it is discouraging to find the structures in which the educational process must be carried on lagging as far as they do behind the demands of the best modern theory and practice." But it is gratifying to note the increasing frequency of provision for kindergartens, health service, indoor play and physical activities and vocational instruction, in the more recent plans.

TABLE II—COMPARISON OF PERCENTAGE FREQUENCY OF ELEMENTARY SPACE PROVISIONS IN 1908-17 (AFTER KOOS) AND IN 1921-25 (THIS STUDY)

	Type of Space	*Percentage Frequency* 1908-17	*Percentage Frequency* 1921-25
1.	Class or grade rooms	100.0	100.0
2.	Cloak rooms	92.1	Not tabulated
3.	Toilets	88.2	90.6
4.	Principal's office	70.7	75.7
5.	Teachers' rest room	61.2	60.0
6.	Storage	50.8	60.0
7.	Playrooms	47.7	22.9
8.	Assembly-auditorium	46.0	52.9
9.	Manual training	41.3	About 45.0
10.	Domestic science	34.9	50.0
11.	Library	29.4	35.7
12.	Kindergarten	26.2	38.6
13.	Gymnasium	16.7	28.6*
14.	Health service	7.2	31.4

*Not counting auditorium-gymnasiums.

The discussion now turns to Table III, which deals with floor placement of space provisions. In the first general division of this table there is shown, after each kind of space listed, the number of plans, classified as to number of stories in the proposed buildings, placing such space on the indicated floor. The second general division, comprising the right half of the entire table, shows the same facts in terms of numbers of rooms instead of numbers of plans. Thus the two divisions together, if one follows the second line from the top across the page, show that there were 16 one-story plans that contained classrooms, and that they contained a total of 127 such rooms. Three "one-story with basement" plans contained classrooms in the basements and 6 had them on the first floor. But there were only 6 such rooms in the three basements as compared with 26 on the six first floors. The discussion that follows is principally confined to the facts shown in the first or left-hand division of the table.

In the one-story plans all of the various space provisions are necessarily placed on the first floor. The several-story plans are grouped as follows in the table: one story and basement, 6 plans; two stories, 18 plans; two stories and basement, 21 plans, and three stories, 9 plans.

General classrooms are common on all floors except basements, where they occur occasionally, but tend to be more numerous on the higher than on the lower floors. This tendency is doubtless the result of the necessary placement of many sorts of specialized space on the first and second floors.

Arts and crafts rooms, shops, domestic arts rooms, mechanical drawing rooms, gymnasiums, playrooms, gymnasium-auditoriums, swimming pools and locker and shower rooms, when found, are likely to be on the lowest floor, whether first floor or basement. They are most commonly found in basements when basements exist.

Rooms for kindergarten, principal's office and

the assembly-auditorium are most likely to be found on the first floor above the ground level, but are seldom found in basements. The library is usually found on the second floor but appears frequently on the first. Rooms for the commercial subjects, music and general free-hand drawing are most commonly found on the highest floor. Nature study or science rooms, teachers' and pupils' rest rooms and rooms for the accommodation of the health service are about as likely to be found on one floor as another.

Summarizing differently, if the plan contains a basement, this is likely to contain the vocational activity rooms, the gymnasium and playrooms, toilets, lockers and much of the storage space. On the first floor will be found classrooms, toilets, the principal's office, the kindergarten, the assembly-auditorium, storage and frequently the library. If there is no basement the first floor will naturally absorb the space usually found there. The second floor, unless it is the highest floor, will usually be restricted to classrooms, toilets and the library. On the highest floor, besides classrooms and toilets, will appear the rooms

TABLE III—FLOOR PLACEMENT OF MAJOR SPACE PROVISIONS

In Terms of Numbers of Plans

Space Provisions	*One-Story Buildings Sixteen Plans*	*One-Story and Basement Buildings Six Plans*		*Two-Story Buildings Eighteen Plans*		*Two-Story and Basement Buildings Twenty-One Plans*			*Three-Story Buildings Nine Plans*		
		Basement	*First Floor*	*First Floor*	*Second Floor*	*Basement*	*First Floor*	*Second Floor*	*First Floor*	*Second Floor*	*Third Floor*
1. Kindergartens	4	1	2	7	0	5	6	0	3	1	0
2. Classrooms	16	3	6	16	18	4	21	21	4	8	8
3. Lecture Rooms	0	0	0	1	0	0	0	4	0	2	0
4. Recitation Rooms	1	0	0	0	1	0	0	2	2	2	1
5. Nature Study and Science	0	0	0	3	1	0	0	1	0	0	1
6. Vocational Rooms											
(a) General Arts and Crafts	3	1	0	5	0	10	1	1	5	1	0
(b) Shops											
(1) General	0	0	0	0	0	0	0	0	1	0	1
(2) Wood	1	0	0	0	0	3	0	0	0	0	0
(3) Machine	1	0	0	1	0	0	0	0	1	0	0
(4) Print	0	0	0	0	0	1	0	0	2	0	0
(5) Binding and Repair	0	0	0	0	0	0	0	0	1	0	0
(c) Domestic Arts											
(1) General	2	1	0	5	0	11	0	0	2	2	0
(2) Sewing	2	0	0	2	1	4	0	2	2	1	0
(3) Fitting	0	0	0	0	1	0	0	1	0	0	0
(4) Cooking	3	0	0	2	1	3	0	2	3	0	1
(5) Practice Suite	3	0	0	2	2	3	1	1	1	2	0
(d) Commercial Rooms	0	0	0	0	1	0	0	0	0	0	1
7. Drawing Rooms											
(a) General	0	0	0	0	0	0	0	2	0	0	1
(b) Freehand	0	0	0	1	2	1	0	3	1	0	0
(c) Mechanical	1	0	0	0	0	3	0	0	1	0	0
8. Music Rooms	0	0	0	0	0	0	2	3	1	0	1
9. Administration	16	1	3	14	3	4	17	6	4	5	0
10. Teachers' Rest Rooms	7	1	2	8	5	2	6	7	1	5	4
11. Pupils' Rest Rooms	1	0	0	1	0	0	1	2	2	1	1
12. General Science Rooms											
(a) Assembly-Auditorium	10	1	0	8	2	1	8	2	3	1	2
(b) Auditorium-Gymnasium	2	0	0	3	0	2	0	0	3	1	0
(c) Classroom-Auditorium	1	0	0	1	0	0	0	0	1	0	0
(d) Cafeteria	1	0	0	2	0	6	2	4	3	0	1
(e) Gymnasium	2	0	1	4	0	5	3	0	4	1	0
(f) Playrooms	1	3	0	3	1	9	0	0	1	0	0
(g) Health Service	3	0	0	5	0	3	4	5	0	4	1
(h) Library	2	0	1	2	4	0	9	3	0	3	0
(i) Dressing Rooms	7	0	0	3	0	3	2	0	2	2	2
13. Storage Rooms	4	1	1	10	2	18	10	9	6	6	5
14. Toilet Rooms											
(a) Boys'	12	3	2	13	9	15	14	14	7	7	5
(b) Girls'	12	3	3	14	9	16	14	13	6	7	5
(c) Special	4	0	0	2	0	8	10	8	3	3	2
15. Swimming Pool	0	0	0	0	0	2	0	0	2	0	0
16. Locker Rooms	6	0	1	4	0	10	1	2	5	0	0
17. Attendant's Rooms	0	0	0	1	0	5	0	0	1	1	1
18. Showers											
(a) Boys'	1	1	0	1	0	4	0	0	4	1	0
(b) Girls'	1	0	1	1	0	3	0	0	5	1	1

for music, the commercial subjects and general and free-hand drawing. These placements are, of course, affected by the variety of space contained in any given plan, by the number of floors and the presence or absence of a basement, and perhaps by other factors, but they represent the tendencies.

Several critical comments may be passed upon the placements. The putting of vocational rooms, gymnasiums, playrooms, classrooms or any other kind of instructional rooms, in basements is contrary to all accepted principles of modern school planning. Basements of any sort are not usually recommended. If provided they should be restricted to fuel and boiler rooms, the ventilating plant, janitor's room and storage. It is generally advised that sewing rooms be placed on the top floor and the library on the second floor. Commercial department rooms, we are told, ought to be near the principal's office. None of the recommended placements is the rule in these plans, but on the whole, the floor placement of the various kinds of space in the plans can be generally commended and is worthy of consideration.

IN ELEMENTARY-SCHOOL BUILDING FLOOR PLANS

In Terms of Numbers of Rooms

One-Story Buildings	*One-Story and Basement Buildings*		*Two-Story Buildings*		*Two-Story and Basement Buildings*			*Three-Story Buildings*			*Space Provisions*
	Basement	*First Floor*	*First Floor*	*Second Floor*	*Basement*	*First Floor*	*Second Floor*	*First Floor*	*Second Floor*	*Third Floor*	
4	1	2	7	0	6	9	0	3	1	0	1. Kindergartens
127	6	26	63	139	17	111	137	14	63	69	2. Classrooms
0	0	0	4	0	0	2	2	0	2	0	3. Lecture Rooms
1	0	0	0	1	0	0	4	2	3	2	4. Recitation Rooms
0	0	0	3	1	0	0	2	0	0	1	5. Nature Study and Science
											6. Vocational Rooms
3	1	0	9	0	14	2	2	5	0	1	(a) General Arts and Crafts
											(b) Shops
0	0	0	0	0	0	0	0	6	0	1	(1) General
1	0	0	0	0	4	0	0	0	0	0	(2) Wood
1	0	0	1	0	0	0	0	1	0	0	(3) Machine
0	0	0	0	0	1	0	0	2	0	0	(4) Print
0	0	0	0	0	0	0	0	1	0	0	(5) Binding and Repair
											(c) Domestic Arts
2	1	0	6	0	16	0	0	2	3	0	(1) General
2	0	0	2	1	4	0	2	2	1	0	(2) Sewing
0	0	0	0	1	1	0	1	0	0	0	(3) Fitting
4	0	0	2	1	3	0	2	4	0	2	(4) Cooking
3	0	0	2	3	3	2	1	1	6	0	(5) Practice Suite
0	0	0	0	1	0	0	0	0	0	4	(d) Commercial Rooms
											7. Drawing Rooms
0	0	0	0	0	0	0	3	0	0	1	(a) General
0	0	0	1	2	2	0	4	2	0	0	(b) Freehand
1	0	0	0	0	3	0	0	1	0	0	(c) Mechanical
0	0	0	0	0	0	2	3	1	0	1	8. Music Rooms
20	1	3	19	3	7	25	11	14	9	0	9. Administration
4	1	2	10	5	2	6	9	7	10	6	10. Teachers' Rest Rooms
1	0	0	1	1	0	2	3	3	1	4	11. Pupils' Rest Rooms
											12. General Science Rooms
11	1	0	8	3	1	13	2	5	2	4	(a) Assembly-Auditorium
2	0	0	3	0	1	1	0	5	2	0	(b) Auditorium-Gymnasium
1	0	0	1	1	0	0	0	1	0	0	(c) Classroom-Auditorium
2	0	0	2	1	9	2	4	5	0	1	(d) Cafeteria
3	1	0	4	0	5	3	0	6	1	0	(e) Gymnasium
1	3	0	3	1	18	0	0	2	0	0	(f) Playrooms
8	0	0	6	0	4	5	11	0	4	1	(g) Health Service
2	1	0	2	4	9	3	0	0	3	0	(h) Library
15	0	0	7	0	5	2	0	4	4	3	(i) Dressing Rooms
15	1	2	17	7	39	19	16	23	12	7	13. Storage Rooms
											14. Toilet Rooms
23	3	2	14	10	16	15	15	7	7	5	(a) Boys'
23	3	3	15	10	17	15	14	6	7	5	(b) Girls'
11	0	0	4	2	18	19	12	6	4	3	(c) Special
0	0	0	0	0	2	0	0	2	0	0	15. Swimming Pool
6	0	1	5	0	18	2	6	9	0	0	16. Locker Rooms
0	0	0	1	0	5	0	0	1	1	1	17. Attendant's Rooms
											18. Showers
1	1	0	1	0	8	0	0	6	2	0	(a) Boys'
2	0	1	1	0	3	0	0	6	1	1	(b) Girls'

A Basic Cycle for Progressive Education

In the educational program of to-day the emphasis is shifting from formal subject matter to the development of the child according to his individual needs

By SAMUEL ENGLE BURR, Director of Research, Lynn Public Schools, Lynn, Mass.

IN DEVELOPING a testing program in a city school system it is important that proper attention be paid to such matters as the administration of the tests, the supervision of scoring and the tabulation of results. The most important feature of the program, however, is the use of the results. No testing program is complete or worth while unless adequate use is made of the results secured. Such results can be used in a great many ways, depending somewhat upon local conditions.

Where Does Testing Lead Us?

The ten most universally accepted practical uses for standardized tests and their results are as follows: classification, by grades, classes and sections; diagnosis of individual and group needs; comparison between ability and achievement (effort); check upon accuracy of class and report card marks; basis for building local informal controlled tests; comparison of local results with established norms; basis for curriculum revision; basis for guidance program; basis for educational publicity; occasionally a test can be used as a teaching device.

This list of uses which may be made of the tests and of their results is not intended to be exhaustive. Nor has there been any attempt to arrange the uses in the order of their relative importance. There are two uses, however, that are outstanding and are frequently followed. One of these is the use that leads to some degree of homogeneity in the grouping of pupils. The other is the use of the results in diagnosing individual and group needs. If only these two uses were made of test results, then the time, effort and expense involved in putting on a testing program would be amply repaid.

However, each of these two uses leads naturally into another step in our educational procedure.

If pupils are classified and grouped with some degree of homogeneity, there will be, from group to group, varying abilities, accomplishments, interests and desires. Within any grade level (or yearly experience level, if we should no longer speak of grades), there will be groups requiring somewhat different materials and techniques, if the best efforts of the pupils are to be evoked.

Such a situation calls for curriculum research and the organization of materials upon several tracks or steps for each grade or experience level. If the familiar three-track plan is followed, there will be developed a new curriculum in three sections, as follows: minimum essentials which all pupils can accomplish; average attainments which most pupils will complete; broader and deeper opportunities for the most able group of pupils.

The establishment of such a curriculum is a big undertaking requiring a considerable period of years and will always be subject to further refinement and improvement.

Testing, then, has led us to grouping and thence to curriculum research and curriculum construction.

Before leaving this point, it should be mentioned that in developing a plan for curriculum revision as a lead for a standardized testing program, it must be fully realized that many desirable outcomes of school work are not measured by our present tests. In emphasizing the usefulness of tests, their limitations must not be overlooked.[1]

Remedial Work Needed

A survey of what has been done so far reveals the fact that practically every standardized test now available is designed to measure certain primary learnings, such as facts or skills, to the exclusion of habits, attitudes and procedures. Consequently we must look to the day when it will be possible to measure these more valuable outcomes of the learning process and for the present we must keep clearly in mind the type of material with which we are dealing.

[1] In this connection, a recent article entitled "Surveys of Instruction" by Prof. Orville G. Brim, Ohio State University, is of interest. It appeared in the *Journal of Educational Method*, June, 1928.

If the use of test results in the diagnosis of individual and group needs were followed, the need for remedial teaching would become immediately apparent. Much of this remedial work should be done by the regular teacher, but in some cases, the aid of special teachers and coaching teachers will become necessary. Included in this remedial work would be changes and adjustments in programs.

With a knowledge of special abilities, handicaps and interests, comes the opportunity to advise the pupil as to his present and future choice of courses and activities. This advisory function of the schools reaches beyond the school organization itself and out into adult life. It becomes a guidance and informational program. If an activities basis is also used, there will naturally arise situations involving advice and information as to further education, and as to choice of occupations and of leisure time activities. Matters of moral, social, ethical and physical importance will be touched upon in a comprehensive guidance program, as need arises, with individual pupils and with groups of pupils also.

Briefly, testing leads to diagnosis and to the application of remedial measures. One step further along this line leads to a guidance program.

The success of such a step requires the active and sympathetic cooperation of the entire staff of teachers and principals, under the leadership of a specially trained staff officer and suitable assistants.

For countless centuries, the education of the child by the adult has been approached from the adult's point of view alone.

Now it is becoming increasingly evident that if the child's viewpoint is accepted as a basis and if the adult guides the child's natural activities so as to insure desirable outcomes, greater learning at greater speed will result. Consequently, the curriculum is now being put into operation on a child activity basis.

Utilizing the Child's Interests

This means that the child's natural interests and reactions are utilized, are recognized as purposeful and are directed toward certain desirable outcomes, which may be habits, skills or knowledge.

In this process, units of work, involving many integrated fields of subject matter, are built up by the children. These units serve as natural vehicles for the learning process.

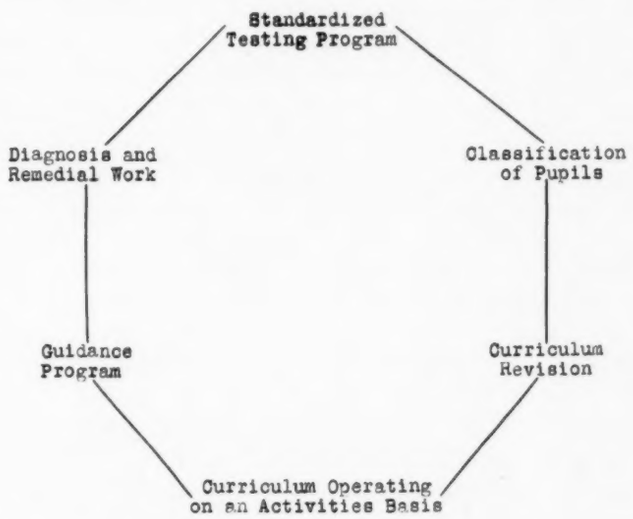
From the supervisor's standpoint, what are these units but revisions of the curriculum, in terms of purposeful activities?

The activities basis, then, leads to the same field of work as the testing program—curriculum revision.

The approach to curriculum revision work from the activities basis will differ materially from the approach to this problem from the classification basis.

When a curriculum is revised in order to meet the needs of homogeneous groups, the establishment of standards receives prime consideration. Content is defined and goals are set up.

When a curriculum is revised in order to meet the situations growing out of pupil activities, integrated units of work develop. These two can be made complementary phases of the revision.



The standards must be interpreted in terms of units of work in order to be useful. The units of work must raise accomplishment to the established standards in order to be purposeful.

Another aspect of the activities basis is the provision for group work in which the child may choose those phases of the problem that appeal most to the particular individual.

When natural interests are disclosed to the teacher in this way, certain duties immediately confront her. If she has discovered a special talent, this should be given opportunity for development. If it is an interest which she has uncovered, she must provide information and help that will enlarge and strengthen it.

What is this but another aspect of the guidance program which was found to develop also from the testing work?

The operation of a testing program and the utilization of its results work hand in hand with the operation of the curriculum upon an activities basis. Indeed, the two dovetail into one another so completely, in their outcomes, that they form a natural cycle of six elements. This cycle can be represented as forming a hexagonal structure

similar to the picture of the six carbon atoms in the benzene molecule.

Such a hexagonal presentation is given in the accompanying diagram. Here are the related elements: standardized testing program; classification of pupils; curriculum revision; operation of curriculum on activities basis; guidance program; diagnostic and remedial work.

Each of the elements in the cycle has many important corollaries. For example, ten other outgrowths of the testing program have already been listed in this article. Similarly, outgrowths could be listed for the other five elements.

Such a cycle of educational factors is not a mere theoretical conception. It is an accurate portrayal of what has been happening in the public schools of Lynn, Mass., during the past two years, and of what is planned for the future. Similar conditions exist in many other progressive school systems. In many of them the movement has been under way for a much longer period of time and has accomplished correspondingly greater results.

What Lynn Has Done

In Lynn a comprehensive testing program has been instituted (during the first year, it has been limited to the elementary grades), and many uses have been made of the results. Of especial importance among these uses have been the grouping of pupils and the diagnosis of abilities and difficulties, followed by remedial measures of various sorts. These activities have been under the direction of the research department. Provision has been made for extending the department's activities into the curriculum field, starting during the school year 1928-29. The testing program will also be extended, so as to include the junior high-school grades.

The central supervisory staff of the Lynn schools has been gradually introducing an activities program. This, too, will tie up with the curriculum construction program, in the manner already indicated. The preparation of units of work has already started, and a number that have been worked out in various classrooms during the year have already been mimeographed and distributed to teachers in the various schools.

As yet, no definite provision has been made for the personnel which will be required to direct a guidance program. Many teachers, especially in the secondary-school field, are taking courses in guidance work and are beginning to make local application of it in their schools. It is hoped that arrangements will be made for giving more definite attention to this remaining phase of the cycle.

Of course, in the Lynn schools the cycle has only begun to operate. Its real results will not be fully significant until perhaps five or even ten years have elapsed. During that time, many details of the plan may change. Those who are now engaged in the work, believe, however, that this cycle of six interdependent factors is psychologically and philosophically sound, and that it will remain, with little or no change, as a basis for the work to be done.

Each Element Depends on the Others

In one case, the officers of the school department initiated a testing program and introduced an activities basis for the curriculum and then found the other four elements to be natural outgrowths of these two.

The same elements arise, however, no matter what the starting point may be. For example, if a school system should introduce a comprehensive guidance program, it would find diagnosis to be essential and would need to use standardized tests for diagnostic purposes. On the other hand, if a guidance program were instituted, it would logically call for an interpretation of the curriculum in terms of purposeful activities.

In short, the cycle is complete and each element depends upon the others.

It is not to be supposed that each element leads to only two developments as shown in the diagram. Each one of the six elements will lead to many supplementary fields. In this article, a total of ten legitimate leads from a testing program are outlined. Similar outlines might be prepared, showing a variety of leads from the other elements of the cycle.

Methods of Informing Taxpayers

Citizens (taxpayers) are entitled to full information about their schools—strong points, weaknesses, successes, failures, accomplishments, policies, expenditures, budgets. The majority care too little, are too busy to take time to think about the school, or believe it unnecessary for them to bother with such matters. When special demands are made by the school authorities it is difficult to arouse the people to see the need, especially when it means greater expenditures.

The best means of keeping them informed are the public press, especially the small local papers; the annual report, which in the smaller towns goes into many houses; special bulletins mimeographed or printed, and sent to the parents by pupils; public addresses and demonstrations, exhibits, window displays, posters and teachers who are so interested in the work that they inspire all their friends.

Equipping the School With Radio

A compromise must be effected between maximum services and minimum cost by fitting radio installation to exact requirements in accordance with the needs of the individual school

By GEORGE COLE, Radio Engineer, New York City

THE problem of radio in the school is quite different from that of radio in the home. In the latter case we are dealing with a small audience in a small room, purely on pleasure bent. The radio set may be one of limited power, and the programs may be received in just one room. There is no need for extensive wiring for the distribution of the radio programs throughout the building, although this feature is now found in the homes of many radio enthusiasts.

In the case of the school, however, we are dealing with radio in more ambitious terms. First of all, we are confronted with audiences of various sizes. Also, the programs may have to be distributed to many classrooms so as to fit them into the school curriculum, without changing the school routine to meet the broadcasting schedule. Again, while in some homes a certain amount of experimentation may be accepted along with radio entertainment by those of a scientific or mechanical turn of mind, school radio must be considered strictly in terms of the end itself—the program, with virtually no attention paid to the means employed. In other words, absolute simplicity and reliability of operation are essential for the school radio. Nothing short of that will give satisfactory results.

What the Problem Comprises

For the sake of convenience in arriving at what is required in any given case, let us divide the school radio problem into several logical branches for a more intelligent analysis of the factors involved.

We have, then (1) the size of the school audience; (2) the degree of naturalness sought; (3) the decision of (a) using a single set to which the pupils are brought, (b) a single set of portable or semiportable form which may be brought to different schoolrooms, (c) a single, stationary set with extension wiring and remote loud speakers for the purpose of making the radio service available in various classrooms; (4) the use of lighting current or, in the absence or inconvenience of using such current, the use of battery power; (5) simplicity of operation; (6) reliable and economical operation.

It might be said that cost is a prime consideration, but to make price the first consideration is to limit the radio equipment at the outset, without any consideration for the actual requirements to be met. The only price consideration is that cheap equipment often gives cheap results, with frequent repairs and early replacements more than making up the difference in price between good and poor equipment, yet never providing the satisfaction that comes from really good radio.

Size of Audience Important Factor

The size of the audience must always be the first consideration in deciding what radio set is required. Thus in the case of a classroom with not over fifty children, a modest radio set may be employed, either of the battery operated or socket power type. The investment is modest in either case, for the set is comparable with that in the average home.

The better type of battery receiver to-day has proved highly satisfactory for individual classroom radio. Compact, battery operated, with single dial control, amply sensitive and selective, it provides good service with a suitable loud speaker. It may be installed anywhere in the classroom, since it requires little space. The installation is little more than connecting it with a short antenna to the nearest water or heating pipe. The volume is ample for the average classroom if close attention is paid by the pupils, while the tone quality is of a high order. Anyone, including the youngest school child, can operate this set and obtain the same results as would the expert with the most elaborate radio receiver. The battery operated set is perhaps most popular in the rural school which is not wired for electricity.

When lighting current is available, the advantages of socket power operation are not to be denied. First of all, socket power means endless and constant power at the snap of a switch. It means the lowest cost of operation, since batteries have always been the biggest item of cost

In schools having radios in 1924, the sets were neither compact nor beautiful.

in the battery operated receiver. Lastly, it stands for greater volume and more realistic tone quality, due to the use of a power tube of ample capacity.

In the moderate priced "electrified" radio set, we have a compact, simple, inexpensive socket power receiver for the individual classroom or small school. In fact, inasmuch as this type of receiver is entirely self-contained with the exception of the external loud speaker, and since it is ready to operate anywhere when connected to a simple antenna and ground to the nearest electric light socket or outlet, this set may be considered a semiportable outfit, available in any room in the large school not wired for the distribution of radio programs from a central receiver. The typical socket power set will operate two usual loud speakers placed in the same room for greater volume and realism, or placed in separate rooms. Such a receiver also features extreme sensitivity and selectivity with utmost simplicity of operation. The tone quality is a close approach to realism, with ample volume for the small classroom.

When we come to the school auditorium, we are dealing in real magnitudes. It should be noted that a radio loud speaker is an electric power device in much the same sense as is an electric motor. The loud speaker converts electrical energy into mechanical work, which in this case is the vibrating of more or less air space. Obviously, the school auditorium, measuring many times the size of the classroom, contains many times as much air space to be set into vibration. Therefore, a far more powerful loud speaker is required, actuated by a power amplifier of the largest kind. Receivers for this purpose are now available to operate powerful loud speakers, mounted on suitable baffle boards for proper acoustic effects.

A Model That Is Popular

Probably the most popular of all school radio installations is the combination of a loop superheterodyne radio and the power loud speaker. This combination is completely socket power operated and, furthermore, requires no antenna or ground connections. It can accordingly be placed in any location without difficulty. The programs are picked up by means of a rotatable loop on top of the receiver cabinet, while the loud speaker and power amplifier unit supply all power for operation. The receiver contains the well known superheterodyne circuit which is without equal

Developments of the last four years have given us radios that a child may operate.

for sensitivity, selectivity and all-round efficiency.

While such a combination represents a balanced ensemble, the loud speaker amplifier unit may be employed in combination with any other receiver, for furnishing the powerful voice and part of the operating energy. This loud speaker will readily fill a small auditorium with a volume and tone closely approximating actuality. Despite the remarkable results obtained, the operation of such a combination is of the simplest kind.

Getting a Natural Effect

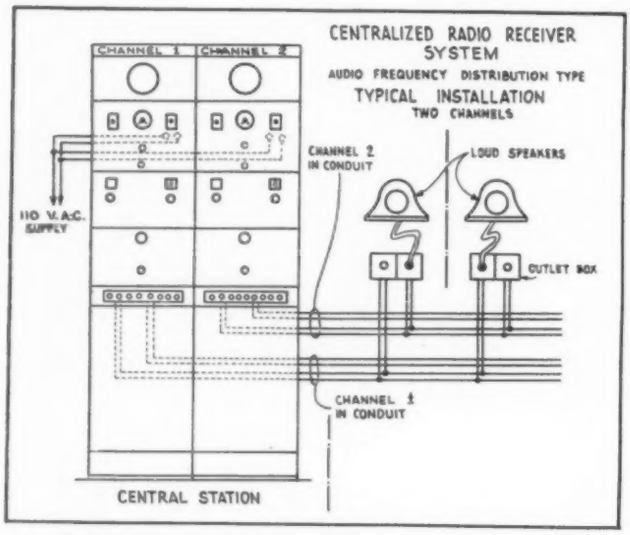
So much for the size of the school audience and fitting the radio equipment to suit it. Turning to the second particular, namely, the degree of naturalness sought, we find that this rests largely in the type and quality of the radio equipment and in its output capacity. Natural radio rendition is a function of carefully engineered and properly fabricated radio apparatus, together with ample power for its operation. Leading research workers and engineers have evolved equipment capable of detecting, amplifying and reproducing radio programs without distortion and with all the volume required. To-day the matter of tone quality is one of investing in the best possible model of a reliable make of radio receiver.

As to how the radio set is to be employed, this particular is readily solved. To-day the usual radio is so compact and simple to install that it may be said to be a semiportable receiver. The simple battery set, despite its extra batteries, may be readily moved about if need be. The simple socket power set is also quite portable, since its power source may be any electric light socket or convenience outlet. Even the superheterodyne and power speaker combination is easily moved, since it takes its power from the nearest electric light socket or outlet, and requires no antenna or other external connections.

The question of extension wiring for loud speaker stations is one that must be considered from every angle. Economically, it is a matter of whether a powerful central receiver, with radiating wiring to many loud speaker stations, is as economical as individual or semiportable radio sets that may be carried from room to room or left permanently installed. Certain it is that if an entire school is to be supplied with simultaneous programs, then a central receiver with extension wiring and separate loud speakers is the obvious choice.

In connection with school installations, engineers have developed special centralized radio re-

ceivers of the highest type. The typical installation comprises a switchboard arrangement of radio receiver proper, the radio power unit for supplying the various voltages required from the lighting circuit, a powerful amplifier and a control panel and distributing panel. The extension wiring makes possible the installation of temporary or permanent loud speakers in any part of the school building. For each program to be distributed there is a separate switchboard section together with separate extension wiring. Thus with two or three sections or "channels," two or three simultaneous programs may be broadcast, with the choice of two or three programs in any part of the school. During the intervals when no suitable radio programs are available, an elec-



A typical school radio installation, having a central station and several loud speaker extensions.

tric phonograph may be included in the installation.

For the large school, particularly at the time of construction, the centralized radio receiver represents the ideal installation.

The question of socket power operation is too obvious to require elaboration. Suffice it to say that it is the logical choice wherever electric current is available, although battery operated receivers have been perfected to the point where remarkable efficiency is obtained in the absence of lighting current.

Simplicity of Operation a Feature

As for the simplicity of operation, present day radios are intended for lay operation. No longer need the superintendent look upon the radio installation as an experimental proposition which will provide plenty of amusement to those operating the set but hardly any to the pupils. The present radio is ready to operate the moment it is installed and the switch is snapped. Aside from the replacement of tubes at long intervals, there is nothing to get out of order or cause additional expense.

The final consideration in deciding on the radio installation is to buy equipment of reliable make. After all, cheap equipment may well prove the most expensive radio in the long run.

The Need of Better Teaching

There is much need for better teaching in the high schools. Seventy-eight per cent of the high-school teachers are college graduates, but few have had any practical experience before graduation. They should be better trained; therefore, they should be given an opportunity to practice the theory learned in their classes, a chance to try out methods, and to think and work in terms of children.

Seventy-nine per cent of the high schools of the country are in rural communities. Seventy-nine per cent of the rural high-school teachers are in the same position not over three years. There they get their experience at the expense of pupils.

The prospective teacher should be given experience. Most normal schools have regular practice schools, and the colleges that offer educational courses should have them.

The college should help finance one or more efficient teachers in a high school; these teachers should teach, supervise the teaching of from one to three cadets, help with lesson plans and hold conferences at the end of the day; the cadets should plan, teach and visit other teachers.

Where cadets are not accepted, the college should be responsible for part of the salary of excellent teachers. Prospective teachers should be sent to attend regular classes under these teachers. Cadets should make out lesson plans, and prepare the material for each class they are auditing. Their plans should be criticized by the teachers and methods used should be discussed.

In New Hampshire, four-year courses have been introduced in the two normal schools. The students practice teaching under trained supervisors. There are also two high schools where a supervisor and from four to six cadets are furnished. The state university sends out its prospective teachers, who observe before undertaking the full responsibility of the classroom.

The majority of the teachers from these schools are much more successful in the first year, and are in demand by the superintendents. Standards will be raised when state departments of education give certification only to those who have undertaken successful work in the classroom.

The City School Superintendent—A Professional Leader*

Constantly changing legal status of the school administrator marks the progress of educational legislation in the individual states, as shown in the remarkable school code of Alabama

By J. CAYCE MORRISON, Assistant Commissioner of Education, State Education Department, Albany, N. Y.

A NATURAL tendency to regard the administrative organization of our city school systems as something static appears to exist in the mind of the public. School organization is in reality a dynamic thing, constantly undergoing change to meet the exigencies confronting its service in an ever changing social order.

The mills of the gods grind slowly. One must visualize the trends of the years in order to comprehend the fundamental and far-reaching changes taking place at the present time in the legal status of the city school superintendent in the United States. A view of that development over a hundred-year period would unfold the gradual evolution of the position from one of lay leadership, through public recognition of the need of recruiting educational leaders from the teaching staff, to the present stage of establishing a genuinely professionalized leadership. An analysis of the changes that have taken place during the past ten years may serve as an indication of the future gains to be anticipated.

Citizens Determine Policy

In public education every administrative function has a legal sanction. Somewhere back of the person or persons performing the act lies a legal authority. The citizens of the state determine educational policy through five procedures:

1. The adoption of the constitution which is the fundamental law of the state.
2. Legislative enactment. The total statutes devoted to education constitute a school code.
3. The rules and regulations of the central state education authority, an agency created by act of the legislature.
4. Rules and regulations of local boards of education, also created by act of the legislature.
5. Regulations prescribed by the superintendent of schools.

In any case the statute must be in harmony with the constitution. The rules and regulations of the central state education authority must be in harmony with the statutory law. The rules and regulations of the local board cannot run counter either to the statutory law or to the rules of the higher educational authority. Likewise the regulations prescribed by the superintendent of schools must be in harmony with the acts of all the higher agencies. These sources of legal authority for administrative acts in public education are portrayed graphically in Fig. 1.

Specific Duties Are Assigned

In some states the superintendent of schools finds the legal authority for his administrative duties in one or more of three sources: the statutory law, the rules and regulations of the central state authority and the rules and regulations of the local board of education. In other states he receives his authority only through the rules and regulations of his local board.

One of the most significant changes now taking place in the legal status of the city superintendent is the tendency of legislatures to assign certain specific duties directly to the superintendent of schools. The following is typical: "The board of directors . . . shall have the power to employ a superintendent of schools . . . who shall . . . have such powers and duties as they may prescribe, with such duties and powers as are now or may hereafter be prescribed by the laws of the state."[1]

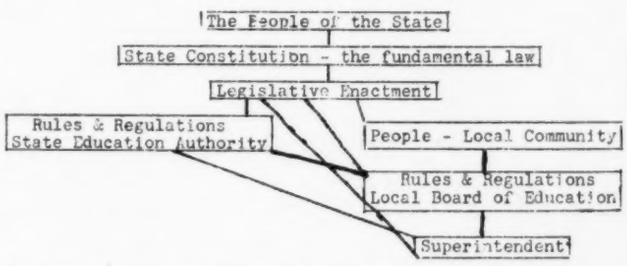

The People of the State
State Constitution - the fundamental law
Legislative Enactment
Rules & Regulations State Education Authority
People - Local Community
Rules & Regulations Local Board of Education
Superintendent

Fig. 1. Sources of legal authority for administrative acts.

*Paper read before a sectional meeting of the Educational Research Association, Boston.

Similar reference is to be found in the school laws of Vermont: "Said superintendent . . . shall perform such duties as shall be prescribed by law and by said board of school directors, including such administrative and clerical duties as the state board of education may require."[2] The latter statute recognizes the superintendent's responsibility to each of the three sources.

Legislatures are inclined to delegate to city superintendents sole responsibility for the performance of certain administrative acts that are not likely to involve controversial issues. This tendency is illustrated by the fact that twenty-six states have delegated to the superintendent responsibility for granting working papers. In thirteen states he is held responsible for making reports to the state education authorities.

A more likely future development in the legal status of the city superintendent will be the careful definition of his relationships to the board of education and a clearer analysis of the respective responsibilities of the superintendent and of the board for the exercise of each administrative function.

An analysis of the statutory law of the several states discloses five degrees of relationship between the superintendent of schools and the board of education. These are:

1. The board of education is solely responsible for exercising the function. The superintendent has only such responsibility as the board may delegate to him.
2. The statutory law guarantees the superintendent the right to advise with the board of education.
3. The law places responsibility for initiatory action upon the superintendent and the board can act only upon his recommendation.
4. The sole responsibility is vested in the superintendent.
5. The action of the board of education is subject to review and approval by the superintendent.

A Guarantee Against Hasty Action

The legal guarantee of advisory power to the city school superintendent is one of the most important single assurances of professional leadership that can be established. Making the superintendent legally responsible for initiatory action in all administrative functions forces him to assume responsibility in the eyes of the board and of the public. At the same time it guarantees to the public protection from hasty and ill-advised action on the part of its representatives. What the future relationship may be is difficult to predict.

The power of approval vested in the superintendent is apparently a vestige of the old relationship imported from Europe and particularly from the Napoleonic code. It has crept into certain of our statutes through the tendency of legislatures to carry into the definition of a new administrative office the phraseology pertaining to similar offices already appearing in the statutory law. In certain of the southern and western states the county superintendency was the first local educational office to be established. The early legislatures in defining the powers and duties of that official drew somewhat from the Napoleonic code. Later, as cities developed and wished to be free from county control, it was an easy matter for the state to provide for the new office through a statute similar to the following: "The superintendent of city schools . . . shall have the authority and perform the duty of a county superintendent as provided by law."[3]

School Laws Analyzed

Table I gives the distribution of the states on the basis of the degree of relationship existing between the city board of education and the superintendent in the exercise of certain administrative functions. These data are taken from the analysis of the school laws in force on July 1, 1919. Florida, Georgia and Maryland were excepted because of their dependence upon the county organization. The parish system of Louisiana should have been excepted on the same ground but was retained because it seemed to throw some light upon a type of school organization not found to any extent in the northern and eastern states.

It is interesting to note how much greater is the responsibility placed upon the superintendent of schools, through enforcement of the compulsory attendance law and in granting working papers, than is that delegated to him in selecting attendance officers and in taking the census. In preparing courses of study, the central state authority and the superintendent play a significant role, while in preparing the budget the superintendent's influence so far as legal responsibility is concerned tends to disappear. To those who believe in a strong professional leadership on the part of the city school superintendent the data from Table 1 would prove discouraging were it not for the fact that if a similar table had been prepared for 1890 or even for 1900 it would have shown an almost total lack of entries in the columns indicating relationships, 2, 3, and 4.

In analyzing the data for Table 1 it was found that the states that had given the superintendent of schools higher professional standing had

for the most part passed such legislation during the preceding decade. The states together with the dates marking the passing of such legislation are: Delaware, 1918; Pennsylvania, 1918; New York, 1917; Kentucky, 1912; Ohio, 1914; New Jersey, 1903. In two or three other states, notably Massachusetts and Michigan, recognition of the superintendent has come by degrees over a longer period of time but the dates given indicate that the professional standing of the superintendent as defined by statute is a relatively recent accomplishment.

Delaware Statute Revised

An analysis of the published school laws supplemented in some cases by the session laws and by rules and regulations of central education authorities indicates significant changes since the data for Table 1 were secured. The Delaware code of 1918 had grown out of a statewide survey and represented the most advanced statutory recognition of the professional attainment of the superintendent in the forty-eight state school codes. For instance, it made the superintendent solely responsible for taking the census, for enforcing the compulsory education law, for making reports to the board of education, for enforcing rules and regulations, and for supervising classroom instruction and the school in general. It further made him responsible for initiatory action in all other functions for which the board of education was responsible. Apparently, the public of Delaware was not ready for changes so drastic and the statute was considerably revised by the legislature of 1923.

Under the present laws in Delaware, the superintendent of schools must also serve as secretary to the board of education. "He shall attend all meetings of the board and of its committees

TABLE 1—SUMMARY OF RELATIONSHIPS EXISTING JULY 1, 1919

Distribution of states on basis of degree of relationship existing between city board and superintendent in the exercise of certain administrative functions. (Florida, Georgia and Maryland excepted because of county organization.)

Function	*No. states that have established relationship (45)*				
	1	*2*	*3*	*4*	*—Blank*
Attendance:					
Appointment attendance officers	35	0	3	0	5+2[c]
Taking census	39	0	0	3	2+1[c]
Enf. comp. ed. law	9	14	10	7	3+2[c]
Granting work. papers	2	0	0	26	13+4[c]
Budget—Preparation of	38	2	1	0	4[x]
Buildings:					
Prep. plans, new const.	26	1	2	0	14[x]+2
Rent, repairs, insur.	40	2	1	0	2
Course of study: prep.	16	9	2	1	3+13[b]+1[c]
Employees, non-instr.:					
Appointment	27	2	3	0	13
Dismissal	15	2	3	0	25
Pupils:					
Admission	36	0	1	0	8
Suspension and dismis.	24	5	8	1	7
Reports to:					
State authorities	13[a]	2	2	13	15
Public	27	1	4	1	12
Supervision of:					
School in general	16[b]	4	10	4	11
Classroom instruct.	1	2	6	7	29
Supplies, selection of:					
Textbooks	15	8	5	0	2+12[s]+3[c]
Instr. supplies	33	2	4	0	6
Teachers:					
Appointment	30	8	6	0	1
Transfer	3	2	4	1	35
Promotion	2	2	3	0	38
Dismissal	24	6	5	0	8+2[c]

[c] Responsibility rests with county authorities.
[s] Responsibility rests with the state.
[a] In 4 of these 13 cases the superintendent has sole responsibility for making certain reports.
[b] In 6 of these 16 cases the statutes contain two statements of relationship, one that places full responsibility with the board, the other that gives the superintendent a responsibility that would be classified either under 3 or 4.
[x] Figure contains one case where the responsibility is vested in the municipal authorities.

except when the tenure, the salary or the administration of his office is under discussion, and shall have the right to advise on any question under consideration, but shall have no vote."[4] In brief, he is still guaranteed the advisory power on all issues but is denied in every case the legal responsibility for taking initiatory action.

Whereas Delaware has taken a conspicuous step backward from its earlier position, Alabama has easily taken first place among the states in the professional leadership accorded to city school superintendents. Its new law went into effect in September, 1919. Two sections are of special significance: "The city superintendent of schools shall perform such other duties as are assigned to him elsewhere in this Article, or as may be assigned to him in accordance with law."[5] The other is Section 169 of the same code. "Said board of education shall exercise, through its executive officer, the city superintendent of schools and his professional assistants, control and supervision over the public schools of the city."

Alabama Makes Sweeping Changes

The first recognizes the principle that the superintendent of schools, as a professional leader, shall be recognized as a representative of the state for administering a local school system. The second recognizes the primal responsibility of the board of education to operate through its self-chosen, professional officers. An examination of the twenty sections of the code devoted to an enumeration of the powers and duties of the superintendent discloses his sole responsibility for the exercise of the following functions:

1. "He shall explain the true intent and meaning of the school laws, of the rules and regulations of the city board of education and of the state board of education, subject to the provisions of this code.
2. "He shall decide . . . all controversies and disputes involving the rules and regulations of the city board of education.
3. "He shall have authority to administer oaths and to examine under oath witnesses in any matter pertaining to the city school system.
4. "He shall supervise remodeling and construction of old or new buildings.
5. "He shall assign all employees and transfer them as the needs of the school require, and suspend them for cause.
6. "He shall organize and direct the reading circle work, advise teachers as to further study and professional reading, and assist parents and teachers in acquiring knowledge of the aims and work of the schools."

It will readily be seen from the statement of the first three duties given above that he is in fact the chief executive officer of the city board of education.

He is made responsible for initiatory action in recommending the kind, grade and location of schools and the purchase, sale and repairs of all school buildings, grounds and material equipment. He must take the lead in formulating policies to be submitted to the board for approval, in making rules and regulations for the conduct of the schools and in examining the qualifications of employees for various types of positions. He is expected to formulate the building program to be carried out over a period of years, to prepare the courses of study, to nominate in writing all employees, to prepare forms and blanks for reports, to plan the budget, to employ the attendance officers and to make out reports. He is directly responsible to the state education department for taking the census.

The best thing in the Alabama code is the recognition of the final authority of the local board of education for every function, at the same time guaranteeing to the public that the superintendent of schools shall assume a position of advanced professional leadership and that the board of education shall on every issue have the benefit of such leadership.

All the worth while gains in this field are not made by such sweeping changes as those noted in Alabama. Some changes come gradually. Arizona has made it possible for the board of trustees in every school district having an average daily attendance of 400 or more pupils to employ a superintendent of schools for a term not to exceed four years.[6] Similarly, Nevada has authorized the school trustees of any district of the first class to create the office of superintendent of schools.[7] The 1927 legislative session of Connecticut revised the definition of duties of superintendent to include "the nomination to the school committee of teachers for the several schools in such town. Such committee shall accept or reject each such nomination within one month from the date it shall have been made."[8]

State Board Fixes Qualifications

The 1923 legislature of Vermont passed a series of acts requiring the board of school directors of each town or school district to employ a town superintendent of schools, a supervising principal or union school superintendent. The act not only specified that the superintendent should perform such duties as might be prescribed by law by the board of school directors and by the state board of education, but also that the state board of education should have power to determine the stand-

TABLE 2—PROFESSIONAL QUALIFICATIONS OF CITY SUPERINTENDENTS

(Including only those states that have established special requirements different from or above those of teachers since 1918)

	State	Date	Grades	Validity L.	Validity H.	Educational Preparation	Experience
1	Alabama	1919 1922	2	6	6	H. GC.+1 yr. G. Ed. L. GNS+1 yr. C.	3 yrs. 3 yrs.
2	California	1925	Same as teachers	..	..	Val. Tchs. Cert.+15 hrs. sch. adm. & sup. courses above min. for Tch. cer.	17 mos. public schools
3	Connecticut	1922	2	3	Per	H. Per. N. S. or PSC + proof exec. abil.+exam. Sch. Org. Conn. Sch. Law & Conn. Sch. Hist. L.G.C.+proof of fitness	3 yrs. inc. 1 yr. as prin. of 5 or more tch. sch. Prin. or supv. 3 yrs.
4	Delaware	1921	1	..	3	G. C. + 1 yr. G. Ed.	3 yrs.
5	Indiana	1923	3	3	5	G. C. + 1st gr. tchs. license + 1 yr. G. Ed.	5 yrs.—3 in preceding 10 yrs.
6	Kentucky	1926	2	4	4	H.GC.+6 hrs. sch. adv. & supv. L. 2 yrs. C+6 hrs. adv. & supv. (Both grades require 12 hrs. in Ed. as part of the college work)	4 yrs. 4 yrs.
7	Maine	1924	2	2	2	H. 2 yrs. C. or N.+ Exam. L. GC+15 hr. G. Ed. O	2 yrs. adm. exp. 2 yrs. exp.
8	Minnesota		1	..	..	1st gr. prof. cert. + 21 hrs. Ed. inc. 12 O hrs. sch. adm. & supv.	2 yrs. — ¼ each day devoted to supv. elem. grades.
9	North Carolina	1917 1921	2	2	5	G.C. inc. 18 hrs. Ed.+O 12 hrs. G. Ed.	5 yrs. exp. or 3 yrs. ex. as H.S. prin.
10	North Dakota	1928	1	..	..	1st gr. prof. cert. + G. C. inc. 16 hrs. Ed. O	2 yrs. suc. adm. exp.
11	Pennsylvania	1921	1	..	..	G. C. or G. N. S. G. C. + 1 yr. G. Ed.	6 yrs. exp. 3 in adm. or supv. pos. 3 yrs. tch. exp.
12	Utah	1926	3	2	Per	H.GC Inc. 36 hrs. ed. courses adm. & supv. specified in Utah L. 4 yr. H.S. 2 yrs. C. or N.S. inc. 12 hrs. in Ed.	5 yrs. adm. or supv. 2 yrs. suc. exp. as supt. in Utah
13	Wyoming	1920	2	3	Per	H.G.C. inc. 20 hrs. Ed. O 2 yrs C. or N.S.+L. 10 hrs. Ed.	3 yrs. exp.

ard of qualifications for these positions and to pass upon the qualifications of any person desiring to be a candidate for appointment.

The Vermont law referred to above is one of many indications to be found in the statutes of the several states to illustrate the growing belief that state education departments will increase their practice of defining powers and duties of local school superintendents. An interesting example of this practice is to be found in the rules and regulations for the issuance of literacy certificates in New York State. The 1922 legislature made the state board of regents responsible for examining candidates and issuing certificates to all new voters in the state.[9] The board of regents, utilizing the machinery that was already available, in turn delegated to city and district superintendents responsibility for holding these examinations and issuing the certificates.[10]

The legal status of the city school superintendent is determined not alone by the relationships defined by law between him and his board but also by the legal requirements as to term, tenure and qualifications. During the last ten

years no important change has taken place in the term or tenure of city superintendents, but a significant change in the legal status of the city superintendent has been noted in the rapidly growing tendency to exact qualifications of him over and above those required for the highest grade of teachers' certification.

The earlier tendency in this direction as exemplified by New Jersey in 1903 and by New York in 1917 was to specify in the statute the educational qualifications that should be exacted. The tendency of the last decade has been to authorize the state education department to establish standards for qualifications and to determine the fitness of the individual applicant for the position. With one or two exceptions this has involved the establishment of a special form of certification for supervisory or administrative officers.

Various Grades of Certification

In 1923 Vermont authorized the state department of public instruction to establish standards for the certification of town and union school superintendents. A similar law was passed in New Hampshire in 1919. In 1916 the Maryland legislature authorized the state commissioner of education to issue certificates for local administrative officers including county superintendents, elementary and high-school principals. Table 2 outlines the professional qualifications for city superintendents in thirteen states that since 1918 have established standards of certification over and above, or at least different from those required of classroom teachers.

Four of the thirteen states have only one grade of certificate. Indiana provides for three grades, the third grade to be granted only to those people in office at the time the law went into effect who could not qualify for the first or second grade. The third grade was good for two years, subject to renewal upon satisfactory completion of certain professional courses. Utah also issues three grades. California made the grade of the supervisory and administrative credentials correspond with the highest form of teacher certificate held. Eight of the states provide for a limited or provisional certificate obviously based upon standards lower than those desired. Six states require a probationary term from two to six years before even the higher form of certificate may become permanent. One other, Utah, makes its highest certificate valid for life providing the holder does not permit five years to elapse without his being regularly employed in teaching or supervising.

An analysis of the educational preparation required for supervisory or administrative certification shows that Pennsylvania will grant a certificate on basis of graduation from normal school; Minnesota on the basis of a first grade professional certificate plus twenty-one hours in education, twelve hours of which must have been in school administration and supervision; Maine on the basis of a two-year normal school course plus examination; Connecticut upon normal school or provisional secondary certificate, plus proof of executive ability, plus knowledge determined by an examination in school organization, Connecticut school law and Connecticut school history. California requires fifteen hours in school administration above the minimum required for the highest grade of teacher certificate. Alabama requires graduation from normal school plus one year of college work. All of the foregoing represent the lowest terms upon which a certificate may be obtained in the several states. In all cases for the higher grade of certificate the standard set is graduation from college. Alabama, Delaware, Indiana and Pennsylvania require one year of graduate work in education over and above college graduation. Maine, North Carolina, North Dakota and Wyoming require from twelve to twenty semester hours of credit in educational work over and above college graduation. Kentucky requires six hours plus twelve additional hours before the certificate is made permanent.

Experience Requirements Differ

The experience requirements for the lowest grade of certificate in the eleven states range from no experience to three years' experience, and for the highest grades of certificate from two to six years' experience. California specifies that the experience shall have been in public schools. Connecticut, Maine, Minnesota, North Carolina, North Dakota, Pennsylvania and Utah require experience in an administrative or supervisory position for one or both of the certificates.

Reference has already been made to the Connecticut requirement in Connecticut school law, school organization and school history. California specifies nineteen courses in administration and supervision which may be credited toward certification; but all candidates must have had a certain number of hours' work in administration and supervision of the growth and development of the child. Delaware specifies that a part of the credit shall be in elementary-school and high-school methods and in administration and supervision. Indiana specifies that a year of graduate work shall contain a major in administration and supervision and the state education department has listed certain subjects that will be accepted. Kentucky, Minnesota, North Carolina, North Dakota and Wyoming specify the number of hours' credit

that are required in administration and supervision.

Provisions made for the renewal of certificates are interesting. The Delaware certificate for superintendents is renewable in three-year periods on evidence of successful experience and professional spirit. Indiana's first-grade certificate is valid for five years, "renewable thereafter for life on presentation of evidence of three years' successful experience and professional spirit." Wyoming's Administrative Certificate III is renewable every three years on completion of five hours' study in professional subjects. The Class A certificate in Alabama is renewable at the end of six years on the fulfillment of any one of the three following conditions:

1. Employment in an administrative or supervisory position for four of the six years covered by this certificate and the satisfactory completion of the reading circle work as a member or a director of a group for four of the six years.

2. Completion of courses in administration and supervision in colleges and universities aggregating twelve weeks within the six years covered by this certificate.

3. Membership in both state and national education associations for the entire six years and attendance on their annual conventions for four of the six years covered by this certificate.

Alabama Code Stands Test

In summary it may be said that the last ten years have witnessed two outstanding contributions toward legal recognition of the city superintendent as a professional leader. The first is the remarkable contribution of the Alabama school code which has stood the test of more than eight years' trial. The second is the growing feeling expressed through legislative enactment that the central state educational authority should guarantee to the local public that the superintendent of schools possesses professional qualifications for leadership in addition to those qualifications required for classroom teachers.

While few states will make at a single step contributions to improving leadership so outstanding as the one referred to in Alabama, the majority of our states will recognize the need for strengthening the professional leadership of the superintendent through improving one item at a time as was done in the amendment to the Connecticut statute giving the superintendent the sole power for nomination of teachers. If one may judge the future by the past, the next twenty-five years should bring the city school superintendent a legal recognition in every state equivalent to that already attained in Alabama. Within the same period all responsible state central educational authorities will no doubt move to establish standards for the training and certification of administrative and supervisory officers as a means of guaranteeing a higher degree of professional leadership.

References

[1]Iowa School Law, 1919, p. 40, sec. 2778.
[2]Vermont School Law, 1925, p. 7, sec. 3, par. 2.
[3]Arkansas School Law, 1923, p. 129, sec. 8908.
[4]Delaware School Law, 1925, p. 27, sec. 27, par. 2.
[5]Alabama School Code, 1924, p. 75, sec. 200.
[6]Arizona School Law, 1925, p. 100, sec. 8.
[7]Nevada School Law, 1927, p. 21, sec. 76.
[8]Connecticut School Bul., vol. 8, no. 10, Aug. 1927, p. 6, amendment to G. S. sec. 893.
[9]New York Education Law.
[10]Bul. 829, University of the State of New York.

High-School Libraries Fail Pupils in Providing Books for Pleasure

Libraries in the high schools of the North Central Association are falling short in the matter of serving pupils particularly in providing books for pleasure, the committee on high-school library study points out in the report published following the completion of a survey of the school libraries in the association. Furthermore, the service to teachers is better than that to pupils.

"The library to-day is an essential factor in secondary education," the report continues. "School libraries should be organized so as to serve pupils rather than teachers and to cultivate in the pupil the habit of reading for pleasure, one of the fundamental aims of the high-school library."

Other points emphasized by the committee were: A more exact definition of what constitutes a librarian is needed; the number of volumes per pupil needs to be greater in a small school than in a large school; the number of pupils per library seat should be larger than it usually is; the quality of books should be carefully scrutinized.

Recommendations for the model high-school library included: a reading room near the study hall capable of seating from 10 to 25 per cent of the school's enrollment; conference and lecture rooms, a librarian's workroom with running water; standard equipment including adjustable shelving, comfortable tables and chairs, filing and display cases, a magazine case and bulletin boards; a book collection approximating six books for each pupil providing books for ready reference, books supplementing classroom assignments and books and magazines for the leisure hour at home and at school. The school should spend for books $1 a year for each pupil, and for library salaries, amounts equal to those paid teachers with equivalent professional training and experience, the committee suggests.

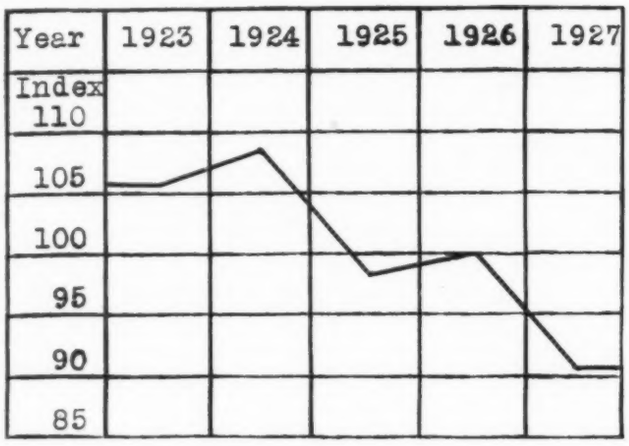
Index Numbers for School Supply Prices

The time of year at which orders for school supplies are placed has a definite bearing on their cost and it is not surprising that a slight rise in prices was noted during September

By HAROLD F. CLARK, Professor of Education, Teachers College, Columbia University, and JOHN GUY FOWLKES, Professor of Education, University of Wisconsin

PRICES of instructional school supplies during the month of July conformed almost exactly with the tentative numbers given in the index of instructional school supplies, presented in the September issue of The NATION'S SCHOOLS. The tentative number was 94.6, and a check with actual prices shows that it was 94.5. The predicted index of 94.9 for August seems to be accurate, followed by a slight rise in prices in September, bringing the figure for that month to 95.0. This is one-tenth of one per cent higher than the corresponding figure for September, 1927. It will be interesting to note the movement of prices during October, November and December, 1928, in comparison with these months of 1927.

As can be seen from Chart I, during 1927 the peak price came in October. Attention is called to the fact that the monthly index of prices of instructional school supplies that is being presented here is derived from the prices of raw materials,



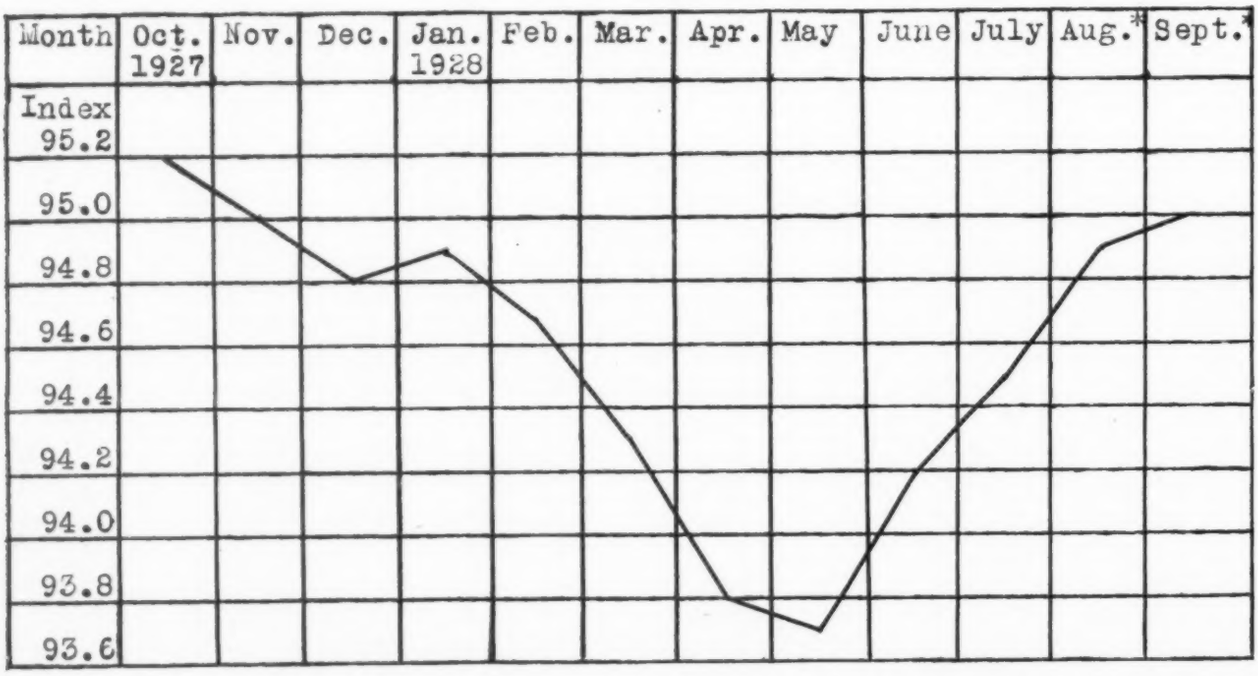


Chart I. Monthly index of prices of instructional school supplies. August and September indexes are not final. Chart II, shown above, is the annual index of the prices of instructional supplies.

TABLE I—COMPARATIVE COST OF INSTRUCTIONAL SUPPLIES FOR SEVENTH GRADE PUPIL WHEN FURNISHED BY SCHOOL AND WHEN FURNISHED BY PUPIL

Articles	*Per Pupil Allotment*	*Furnished by School*	*Furnished by Pupil*
Composition Books	4	$0.16	$0.40
Drill Pads, Arithmetic	1	.30	.36
Drill Pads, English	1	.30	.36
Erasers, Rubber	2	.012	.10
Ink, School	3 oz.	.012	.05
Notebook Covers	1	.25	.50
Notebook Paper	½ ream	.30	.75
Paste	3 oz.	.015	.05
Pencils	8	.11	.40
Pens	18	.05	.15
Penholders	1	.017	.05
Scratch Tablets	3	.075	.15
Scratch Paper	½ ream	.20	.40
Spelling Blanks	3	.05	.15
Theme Paper	¼ ream	.10	.20
Water Colors	1 set	.20	.30
Penmanship Paper	⅓ ream	.12	.25
Rulers	1	.01	.05
Totals		$2.281	$4.67

from which over 98 per cent of school supply articles are manufactured.

One of the most perplexing problems in connection with school supplies is that of who shall furnish such supplies. A study of present practice indicates that certain instructional supplies, such as chalk and ink, are nearly always furnished by the school, while in other instances pupils buy practically all materials used. In deciding by whom instructional supplies should be furnished facility of administration and real cost of materials should be given the most careful consideration.

Should Pupils Buy Their Supplies?

In theory, where instructional supplies are bought by the pupils, the school is relieved of all administrative worry in this connection. However, in reality such is not the case. In the first place, when instructional supplies are bought by the pupils, frequently there are pupils who do not purchase needed materials promptly and inefficiency of teaching results. Also when supplies are bought by pupils there is usually the necessity of furnishing supplies to some pupils who claim that they are unable to buy such supplies themselves. Unfortunately, it is rather common to find a school furnishing supplies to pupils whose parents might well afford to pay for such supplies, while on the other hand needy families are exerting great effort to furnish supplies used by their children. This aspect of the problem is not always given the consideration it merits.

It should also be remembered that the cost of instructional supplies is an educational charge against the community. This charge takes the form of taxes when supplies are furnished by the school, while it appears as an expenditure by the patron when supplies are bought directly by the pupils. In either case, the expenditure should appear as a cost of education, and obviously it is unfair to compare the cost of education in a city where all supplies are furnished with one where the pupils furnish all or a major portion of the supplies, unless due allowance is made for such differences in practice.

Opinions may differ as to the advisability of furnishing all supplies, but it cannot be denied that the cost of a given amount of supplies is much greater when bought by the pupils at retail prices than when purchased by the school at wholesale prices. In deciding the question of who shall furnish instructional supplies, a superintendent should give careful consideration to this matter.

Results of Study Tabulated

As an illustration of the difference in costs, Table I is presented showing costs of instructional supplies for the seventh grade. The list of items compared is taken from a study concerning present practices with respect to school supplies[1] and consists of the ones frequently furnished by pupils. The allotments and prices are based on prac-

[1] Jones, Lee F. Cost and Allotment Standards for School Supplies, Master's Thesis, University of Wisconsin. 1928.

tices arrived at in this study. Using the same allotments, estimates are available as to the costs of these supplies when furnished by pupils, using retail prices paid by pupils for the items in small quantities, and when furnished by the school.

Comparative Prices Noted

Table II, Column 1, shows the total amount spent for supplies. Column 2 shows the cost on the basis of a per capita A. D. A. of $3.20. This figure represents a desirable minimum when the school furnishes all instructional supplies. Column 3 shows the amount spent by the school when the pupil furnishes the following: blotters, composition books, arithmetic drill pads, English drill pads, rubber erasers, notebook covers, notebook paper, pencils, penholders, scratch paper, spelling blanks, theme paper and water colors. This list includes all items that were furnished by the pupils in more than 50 per cent of the cities appearing in Table II. The average cost per pupil for these supplies is $1.90 when bought by the pupils, this average being weighted in the same manner as are the other weighted averages

TABLE II—ACTUAL AND COMPUTED COSTS OF INSTRUCTIONAL SUPPLIES IN FORTY-FIVE CITIES

Cities	*Total A.D.A.*	*(1) Actual Cost of Supplies*	*(2) Cost at $3.20 Per A.D.A.*	*(3) Cost at $2.30 Per A.D.A.*	*(4) Paid by Pupils*	*(5) Sum of Column 3 and Column 4*
1	720	$ 3,920	$ 2,304	$ 1,656	$ 1,368	$ 3,024
2	12,410	67,447	39,712	28,543	23,579	52,122
3	7,509	33,823	24,028	17,270	14,267	31,537
4	659	2,882	2,108	1,515	1,252	2,767
5	3,454	14,650	11,052	7,944	6,562	14,506
6	5,574	22,750	17,836	12,820	10,590	23,410
7	42,194	154,872	135,020	97,046	80,168	177,214
8	317	1,040	1,014	729	602	1,331
9	557	1,698	1,782	1,281	1,058	2,339
10	3,013	9,070	9,641	6,929	5,724	12,653
11	50,799	145,943	162,556	116,837	96,518	213,351
12	15,309	41,528	48,988	35,210	29,087	64,297
13	1,509	2,848	3,388	2,433	2,012	4,447
14	2,566	6,900	8,211	5,901	4,875	10,776
15	1,436	3,792	4,595	3,302	2,728	6,030
16	5,808	15,000	18,585	13,358	11,035	24,393
17	22,860	57,389	73,152	52,578	43,434	96,012
18	23,014	57,700	73,644	52,923	43,726	96,658
19	13,217	33,135	42,294	30,399	25,112	55,511
20	15,010	36,964	48,032	34,523	28,519	63,042
21	231,383	535,709	740,425	532,280	439,627	971,907
22	827	1,800	2,646	1,901	1,571	3,472
23	15,373	33,035	49,193	35,357	29,208	64,563
24	900	1,773	2,880	2,070	1,710	3,780
25	3,811	7,350	12,195	8,765	7,240	16,005
26	1,950	3,700	6,240	4,485	3,705	8,190
27	7,194	13,550	23,020	16,546	13,668	30,214
28	5,809	10,700	18,588	13,360	11,037	24,397
29	13,671	24,000	43,747	31,443	25,974	54,417
30	10,419	17,343	33,343	23,963	19,796	43,759
31	177,258	294,370	567,225	407,693	336,790	744,483
32	7,867	13,000	25,174	18,094	14,967	33,061
33	7,868	12,500	25,177	18,096	14,949	33,045
34	22,978	34,700	73,529	52,849	43,658	96,507
35	6,698	10,100	21,433	15,405	12,726	28,131
36	16,869	23,040	53,980	38,798	32,051	70,849
37	2,229	3,000	7,132	5,126	4,235	9,361
38	26,234	34,331	83,948	60,338	49,844	110,182
39	2,156	2,764	6,899	4,958	4,096	9,054
40	42,836	53,653	137,075	98,522	81,388	179,910
41	1,757	2,133	5,622	4,041	3,338	7,379
42	950	1,050	3,040	2,185	1,805	3,990
43	780	679	2,496	1,794	1,482	3,276
44	8,596	6,443	27,507	19,770	16,332	36,102
45	8,296	3,535	26,547	19,080	15,762	34,842

used in this table. These items when bought by the school represent 28 per cent of the total cost of instructional supplies. When bought by the pupil, these articles represent 45 per cent of the total cost. Column 4 presents the amounts spent by pupils for the supplies listed above, when they are furnished by the pupil who buys in small quantities and at retail prices.

Column 5 shows the sum of the amounts of Columns 3 and 4, and represents the amount spent in the community when the supplies are furnished partly by the school and partly by the pupils. These amounts should be compared with Column 2. It is obvious that as the pupils in any city furnish more of the supplies, the amount in Column 5 tends to show a relatively larger increase. Hence, in cities where the pupils furnish most of the items used, the disparity between Column 2 and Column 5 will be much greater.

A system of free education includes textbooks and supplies as well as buildings and teachers. Consequently, from a philosophical point of view, there is little dispute as to how instructional supplies should be provided. The data presented here seem to establish a rather strong case for the provision of supplies by the school. If the financial ability of the community will not allow the provision of all instructional supplies by the school, such supplies might well be handled by the school and sold to the pupils on the basis of a small service charge of 5 or 10 per cent of the cost of such supplies. In either case, namely, whether the supplies are furnished outright by a school or bought by the school and sold to the pupil, standardization of supplies within a given school system will be assured, both as to quality and amount of supplies used, and the ultimate cost of instructional supplies will be much lower than under existing conditions in many communities.

What the Superintendent's Office Expects of the Teacher

What the city superintendent's office expects of the teachers in Casper, Wyo., is set forth briefly but unequivocally in a bulletin that is issued to each teacher at the beginning of the school year by Superintendent R. S. Hicks.

Excerpts from the bulletin will no doubt interest other superintendents who either issue or who are planning to issue a similar bulletin:

"A study of the substitute cost in the Casper schools shows that Monday's cost is out of proportion to the other days of the week. This means that a number of the teachers are not making their week-ends conform to the laws of health. Due attention will be given to absences in the rating scheme."

"Five days' absence with full pay is allowed, but this is not cumulative."

"The idea of supervision is not only theoretically sound but it has proved its practical value. The entire teaching staff is therefore expected to work harmoniously with the supervisors, principals and superintendents and to make every possible use of them in improving instructional technique. Supervisors and principals should be a united force, helping in every way possible to integrate knowledge rather than to segregate it into departments."

"Teachers are required to visit the homes of all pupils during the first semester."

"A home teacher is provided to assist the child that has been out of school because of illness, to take assignments to him and to help him in preparing his lessons. She also assists cases of maladjustment between the school and home and looks after attendance problems."

Value of Part-Time Cooperative Education

Part-time cooperative education is slowly but surely coming to be recognized as the most satisfactory medium for preparing youth for industry. That part-time education is feasible goes without saying and it only waits for development from the school man and the industrial leader to make it nationally successful.

The help that industry can give the schools in the form of equipment, work and opportunity cannot be estimated and on the other hand, the help that the schools can render industry, in the guidance, education and placement of youth is a service that will be of immense value to industry.

One of the greatest requisites for the successful administration and fulfillment of a part-time scheme of education is not only close cooperation between the school and the industry but the ability of both parties to maintain their training. This means a well equipped school with competent instructors as well as a stable industry capable of carrying on.

The advantages to the individual under the part-time scheme are many. It enables him to enter industry at the beginning of his training and consequently obtain first-hand information concerning his vocation. It teaches the individual the requirements industry demands of him, and robs him of any sentimental ideas he may have of work. Lastly, it brings the individual in touch with a prospective employer to their mutual benefit.

The NATION'S SCHOOLS

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Editorials

Is This Fair Play?

UPWARDS of five hundred university students who had been making preparation for teaching came up to the last semester of the senior year. They began to cast about for positions. They enrolled in the appointment bureau of the university. A number of them enrolled also in teachers' agencies. Many of them were under the necessity of earning their living after graduation, since most men and women who enter the teaching profession must support themselves. People who have money do not aspire to a pedagogical career.

It goes without saying that the majority of these five hundred students were eager to secure opportunities for service to make them self-sustaining and to enable them to reimburse those who had stood by them financially while they were preparing to teach. So whenever one of them heard of a possible opening, whether advised by the placement bureau or by a teachers' agency or in some other way, he made application for the place.

School officers would write to the employment bureau and mention the vacancies that might occur in their respective communities. They would ask that from five to ten candidates be nominated for each position so that they might have opportunities for choice. The teachers' agencies nominated a number of candidates for every vacant position. The result was that there were numerous applications for every available place within the area served by the university.

At the end of the year the students who had been casting about for positions gave testimony concerning their experiences. Most of them had made applications for several places without waiting to learn their fate in respect to any one of them, wishing to be sure of landing one place at least. Rarely was a candidate informed officially of the fact—it was the fact in most cases—that a position for which he had applied had been filled. As late as the first of July, candidates were still hoping that they might hear from places for which they had applied from two to four months previously, although it was learned later that practically all of the positions had been filled long before July first.

Inquiry was made of a number of school officers, who had encouraged applicants to apply for vacant positions, concerning their relations with

unsuccessful candidates. All but three of the officers who gave testimony said that as soon as a given position had been filled they threw into the waste baskets all applications except the successful one, and went about their business. They maintained that they were under no ethical, moral or any other kind of obligation to advise candidates when a decision had been reached regarding any position. They held that an applicant should find out as best he could and in any way he could whether there were a likelihood that he would be needed for the position for which he had applied.

An Unfair Practice

It was learned that in some cases clerks in the office of the superintendent or board of education had sent application blanks to candidates applying for positions that had already been filled. When the applications were received the clerks sent requests for information from references cited in the application blanks of candidates. The references were usually university instructors, who conscientiously described the qualities of the candidates and forwarded testimonials to the superintendent's office. In due course there would be a house cleaning in the aforesaid office and everything, including applications and testimonials, would be dumped into a waste basket, in some cases without having been looked at.

It does not seem possible that this practice should be tolerated, considering that school people have for decades been discussing codes of ethics to govern the relationships of school people toward one another and toward administrative superiors. Could anything be more unfair than to encourage a candidate to make application for a position and then to leave him in doubt for months and never inform him if he were unsuccessful? It seems that the teaching profession ought to be above this sort of thing.

Some school officers said in response to the inquiry made of them, "We often have dozens of applications for every vacant position in our system, and we cannot bother to tell them all when any position has been filled." All that would be required would be to put a form letter into an envelope and mail it. Surely a person who has spent four years or more preparing for a teacher's position is entitled to this much consideration. Have school officers forgotten their own experience when they were first trying to get started in teaching? Would it not tend to encourage teachers to adopt the principle of fair play in all their relations if school officers would play fair with the teachers?

Utter indifference to the interests and feelings of those who seek positions in teaching and those to whom they refer when they make applications, exists in many educational offices. Superintendents have stated that it is often known as soon as a vacancy occurs who will be appointed to fill it, but registration blanks for this position are sent out broadcast to candidates, and requests for detailed information from references are made when there is no possibility that either the applications or the testimonials will ever be used. What kind of an ethical code can any one follow who treats candidates and their references so inconsiderately? Those who furnish testimonials as well as the candidates who are lured on under false pretenses have the right to feel aggrieved. Instructors who conduct classes for teachers in which there is a large enrollment are required to devote a great many hours every spring and summer to writing testimonials that are often thrown into a waste basket without ever being so much as glanced at.

If anyone thinks that such a policy can be justified on any basis whatever, the pages of The NATION'S SCHOOLS are open to him for the defense of the practice.

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Interpreting the Schools to the People

AMERICAN Education Week has become a permanent institution. This year it will begin on November 5 and extend through the following Sunday. Each day in the week will be devoted to the consideration of a specific phase of education. On Monday, problems and ideals pertaining to health will receive attention; on Tuesday, the cooperation of the school and the home will be emphasized; on Wednesday, the aim will be to show taxpayers and patrons that the money spent on schools is being well invested; on Thursday, the necessity of providing proper education for every child will be stressed; on Friday, training for citizenship will be put foremost; on Saturday, ways and means of supplementing the school through libraries, parks and playgrounds will be discussed, and on Sunday, the return to peace after the World War will be celebrated with appropriate talks and ceremonies.

While each day in the week will thus be given over to the consideration of a particular aspect of school work, there should run throughout the week the story of what the American school is striving to accomplish and what it is actually achieving. Studies and methods have been modified so profoundly and so rapidly during the past few years that a large proportion of our people do

not fully understand much that is going on in the schools. Apparently there are critics among us who believe that the schools are headed for the rocks. They say that pupils fritter away their time in school with a multitude of soft and flabby subjects. They condemn modern education because they believe that it does not train pupils to think accurately or to do efficiently anything that needs to be done in present day American life. They maintain loudly and persistently that the schools are costing too much and that the product is not at all commensurate with the money and effort expended upon it.

Whenever the occasion presents itself, but especially during Education Week, the objectives of the schools should be interpreted for those who have not been able to keep pace with our changing curricula and plans of organizing and administering the schools. Particularly, it is imperative to make it clear to taxpayers and patrons that the schools are not abandoning the traditional subjects of instruction and are not leaving pupils stranded at the end of their school course in respect to spelling, arithmetic, handwriting and grammar. There persists among our people the belief that efficiency in these subjects is of chief importance and that the schools should lay stress upon them from start to finish. Unless it can be made convincing to skeptics that present day schools are not neglecting the fundamental subjects, that children are accomplishing just as much now in these subjects as pupils did twenty-five years ago, it will be impossible to convince critics that the schools are well adapted to our needs to-day, and that if they had not kept pace with the new developments in American life they would be more or less valueless now, as the schools are in some foreign countries.

Enlightening the Layman

Education Week ought not to be utilized primarily for the purpose of making appeals for more money for the schools. The dominant aim should be to enlighten laymen regarding the psychological and sociological principles underlying the developments taking place in our complex educational system. It was comparatively easy twenty-five years ago for a layman to understand what the schools were driving at. To-day even some of those who are teaching in the schools have no clear notion of why some of the revered studies are being pruned while new ones are being incorporated in the course of study, or why there is more individual freedom and spontaneity in the classroom now than formerly. It is not at all surprising that the typical man on the street cannot keep up with our educational progress, and, true to human nature, what the layman cannot understand he generally condemns.

This attitude is not confined to the layman by any means. Two-thirds of the members of college and university faculties who are deeply versed in their respective subjects are skeptical concerning the soundness of modern public education. One can hear a specialist in physics or Latin or mathematics or law or engineering or any other field berate the public schools and their sponsors because he thinks they have cut their moorings and are drifting with the winds and the tides. Anyone who is not acquainted with the principles in view of which American education is revising its programs of studies and methods will have doubts and apprehensions concerning it. For this reason it is necessary that every effort should be made to lead people to understand why the schools to-day are in all respects quite different from those of twenty-five years ago.

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Autocratic Regimen Is Doomed

THE most impressive movement affecting education at home and abroad is designed to foster spontaneity and freedom among pupils of all ages. Everywhere teachers are urged to abandon formal, rigid methods in the government of children, even in the earliest grades. Some readers may remember when good order meant enforced restraint upon pupils. Each pupil was required to perform his tasks quietly without communication or cooperation with his classmates. Lessons were assigned by the teacher without consideration of the pupil's interests or special needs. Lessons were learned in a memoriter way and recited verbatim for the purpose of enabling the teacher to determine whether the pupil had accurately memorized and fully retained his lessons. Under such a regime, which has persisted in some parts of our country and in many foreign countries down to the present time, the pupil was a subject and the teacher an autocrat. It was the teacher's privilege to govern and to prescribe tasks. It was the pupil's duty to learn, to be respectful, to be obedient without asking questions and to raise no objections.

All this is passing. The most striking instance of the new order is found in Germany at the present moment. Until within four or five years ago, the German educational system was militarized in a high degree. Pupils were never indulged in their spontaneity. They were commanded and they obeyed. But during the last three or four years, the system has been changing rapidly and profoundly. Teachers are now exhorted to consult the interests of their pupils, to encourage

them to take the initiative in their work and suggest problems to be solved. The German teacher is urged to become a counselor, a guide, a friend to his pupils, where formerly he was encouraged to be an autocrat and even a tyrant. Originality, resourcefulness and self-government rather than imposed government are being introduced in modern German schools. The aim is now not to develop obedient, routinized individuals, but rather free, spontaneous, self-directed persons.

America has heretofore led all the nations in the development of an educational system in which freedom and spontaneity have played a more important role in the classroom than autocratic government. The Dalton Plan, the Winnetka Plan and other similar plans, all directed toward the same end, have originated in America. But at this moment Germany, Japan, England and possibly other countries are outstripping our country in applying the principle of spontaneity and freedom to the work in every grade of elementary education. Up to this time America has been thought to be progressive and even radical in the abandonment of a military type of education; but at the present moment we seem to be playing a conservative role. We are, however, moving straight on toward the goal of spontaneity and freedom in education. Our objective is to make educational work so concrete and appealing that pupils will spontaneously apply themselves to the mastery of the knowledge and the skills they should acquire in order to become adjusted to the physical and social situations in which they are placed.

Pupils Show Initiative

One may now go into classrooms in all sections of our country and observe the teacher sitting among her pupils as one of the group, but wiser and more resourceful than any of them; and so she is recognized by them as their leader and their guide, as well as their friend. One may observe in these classrooms that fear has been abolished, that compulsion has largely disappeared, that the children are taking the initiative often in prescribing problems to be solved and in devising methods of attacking them. In such schoolrooms one may see that even very young children are largely self-governing. They make rules and regulations based to some extent upon their understanding of what is necessary in order that the group may get on well together and that each may secure, in as large a measure as possible, whatever he desires.

This new type of education is literally sweeping the entire world. It is hoped and believed by our people—and even more largely by people in the foreign countries where, until a very few years ago, education was rigid, autocratic, and disciplinary—that this freedom and spontaneity granted to pupils will develop in them greater resourcefulness, self-reliance and dynamic ability than is possible under a static, autocratic regimen. More important still, it will be far better for mental health and stability.

N·S

Subsidized Research

IN A preceding number of The NATION'S SCHOOLS attention was called editorially to the vast funds that are being devoted in our country to the encouragement of education and particularly to the support of educational investigation. Every day fresh announcements are made of new gifts to education. Scholarships for worthy students are being established by all kinds of organizations as well as by philanthropic individuals. Industrial enterprises that are supposed to be selfish and devoted solely to monetary gain are supplying funds for the support of research in colleges and universities. Even though these research funds are being utilized for special purposes, the benefits are not minimized thereby. It is fortunate that paper manufacturers, bankers, steel makers, bakers and so on throughout the entire list are appropriating funds for the investigation of problems pertaining to their respective undertakings. This is all to the good. Every one of us is benefited by investigations in the colleges and universities in particular fields. We are all members of one body, and when one member prospers the well-being of the whole organism is promoted.

Of course, there are some among us who think that selfish motives lie behind all this activity in the promotion of education. But if the motives are selfish they will be self-corrective, because the results of research cannot long be utilized for the advancement of selfish aims. Propaganda cannot flourish in an unrestricted way and be accepted when people are immersed in an atmosphere of research. Let us take a concrete instance. The bankers of America are establishing scholarships for study and research. Let us assume the worst and say that the bankers are not governed by philanthropic but rather by mercenary motives. There is no way under heaven that they can prevent their own undoing if they are projecting a program prejudicial to the welfare of the people as a whole, because investigations that are supported by the funds they are furnishing will show whether their program is best adapted to promote the well-being of all the people.

It should be added that there is no evidence

whatever for even suggesting that the bankers have any other object in view in the establishment of scholarships than to find out the truth in respect to the matters that lie within their special field. This is undoubtedly true of other businesses, though just at this moment the activities of the public utility organizations seem to be governed mainly by selfish motives. Apparently they have subsidized research for the purpose of promoting propaganda, but they have come to the end of their rope very rapidly.

N·S

Which Way Are We Heading?

SEE what has happened to us in America during a single generation. Twenty-five years ago, most of the food, clothing and shelter required to maintain life had to be secured by the sweat of one's brow. Now, machines utilizing the power derived from coal, oil, electricity and the rushing waters in the rivers, perform the work that formerly was performed by muscle.

Thousands of men and women are devoting their time and energy to the discovery of new and more complicated devices for the utilization of the forces of nature. We have already succeeded in harnessing these forces and we are making them work for us in ways that the wildest dreamer of an earlier day never thought would be possible. The patent office at Washington reports that inventiveness is on the increase among us. One might think as he looks about him that there is no place or need for new machines, but as a people we are not yet satisfied and we shall probably continue to invent mechanical contrivances until all the physical work is done by machines.

There are those among us who believe that mental work will soon be largely performed by mechanical instruments. There are already machines that can count, add, subtract, multiply, divide, calculate square and cube root and compute correlations among series of data. They can organize masses of information and reach conclusions relating to the vocational aptitudes of individuals. All they need to keep them going is an electric current. They require no supervision, no exhortation to be careful and accurate, no punishment to make them industrious and no reward for well-doing. They do not wear out, grow fatigued or become petulant or resentful.

To-day, we are being set free from toil. We are no longer at the mercy of nature; nature is serving us. We do not have to think much about food, clothing and shelter; some of us do not have to think about them at all. Most of us have much leisure in daily life. Of course we are busy, but not about matters that are essential for physical survival or even physical well-being and comfort. What are we doing with the time and energy that twenty-five years ago was spent in earning the wherewithal to keep the body alive? Are we becoming more self-indulgent, eating more, drinking more, carousing more, loafing more than we did before the age of machines? Or are we employing our leisure in extending our knowledge, in cultivating friendships, in improving social relationships and in surrounding ourselves with objects of beauty and harmony?

It has been shown often enough in the history of mankind that physical indulgence weakens the members of a race so that they cannot even retain the knowledge and the arts that have been transmitted to them by their forbears. When people are required to work eight or ten hours a day in order to maintain themselves, they must develop habits of regularity, endurance, temperance, frugality, resourcefulness and sagacity. But when they can set up machines that will run on endlessly and provide about everything that is needed for protection and comfort, there is danger that deterioration of body and mind will ensue.

An Encouraging Sign

No one can tell with certainty whether we are growing stronger in the qualities and habits that are essential for continued prosperity and stability, or whether we are becoming weaker in these qualities. One's views must be founded more on hope and faith than on proof of any kind. There is at least one encouraging sign. The world has never seen anything approaching the magnitude and comprehensiveness of educational programs such as we are developing in America today. Not only are children and youths becoming equipped with knowledge pertaining to the problems of daily life, but adults in increasing proportions are continuing their education up to the senescent period. Can a race be overtaken by decay when practically all of its members are acquiring information and mental habits that enable them to see what has happened to earlier peoples who have utilized their leisure for self-indulgence? The reason peoples have not been able to survive before us is that they were growing weaker but they did not listen to the few who could survey the past and predict the future.

At the last Race Betterment Congress, gloomy predictions were made. It was said by careful students of race integrity that we should soon be at the end of our rope if we continued our present course. But the prophets of disaster did not give sufficient weight to the counteracting effects of universal, long continued and dynamic education.

Health Education and Physical Development to the Front

New educational and medical publications point out health consciousness on the part of the nation, with the school leading in the movement by training its pupils in helpful health habits

THE books that are coming from the presses of educational and medical publications these days are stressing the importance of physical education, health behavior and periodic medical examination. As a people we are becoming health conscious. We are not satisfied with our attainments in physical development and our maintenance of physical vigor. We are much more concerned to-day than we were twenty-five years ago about physical well-being.

Health Examinations Are Now Popular

This may be due to the fact that we have more leisure now than we had formerly. We have more time to think about health and physical development than our forefathers had. Life is probably more worth living to-day than it was fifty years ago, when there was a constant struggle to get enough food, clothing and shelter to keep body and soul together. At any rate, we are thinking a great deal more than our predecessors thought about attaining and retaining a high standard in physical development, bodily vigor and mental stability.

The plan of a periodic survey of one's physical condition is becoming widely adopted. I have asked a number of my acquaintances whether they are being looked over regularly by a physician and most of them have answered in the affirmative. School children are generally examined twice a year. Dr. Fisk and Dr. Crawford have written a book, "How to Make the Periodic Health Examination," (The Macmillan Company, New York) which shows in great detail methods of conducting an examination so as to discover how the various physical mechanisms are functioning. The book is probably designed for medical examiners, but it should be of interest and value to intelligent laymen, particularly to those who give advice to young people regarding their habits of living. Further, the authors show what happens to a person when one or another organ does not perform its function properly, and these explanations are illuminating because they help one to understand why some people are eccentric in their behavior and are peculiar in their appearance.

It is becoming the fashion now for teachers to check up their pupils on health behavior. Dr. Wood and Dr. Lerrigo have presented standards for checking up health habits in their "Health Behavior" (Public School Publishing Company, Bloomington, Ill.). Anyone who is responsible for the health of young people—or older people for that matter—will learn from this book what to look for in determining whether or not a person is living in accord with the generally accepted rules and regulations for health behavior. Of course, some doctors—Glendening for instance—think it does not make any difference how one lives, and they would probably not think there are health habits that young people should be encouraged to adopt. But where there is one physician who thinks that health is not affected by one's habits, there are undoubtedly 9,999 who think that one's manner of living does play a role in determining whether he will be well and capable or weakly and useless.

Schools Feature Corrective Exercises

Corrective physical education is gaining in popularity. All the higher educational institutions and some of the lower ones give attention to the correction of physical defects in students. Two books have just come from the press of A. S. Barnes and Company, New York, which show in great detail what are the common physical defects and how they can be remedied. Prof. George T. Stafford, the University of Illinois, is the author of "Preventive and Corrective Physical Education." This book shows how physical defects may be acquired because of faulty habits in school and outside. It shows also how to prevent defects from developing and how to correct them. The subject of corrective physical education is gone into more extensively in a large book entitled "Corrective Physical Education for Groups," by Dr. Charles L. Lowman, Los Angeles and Claire Colestock and Hazel Cooper, Pasadena. A layman examining these two books would be surprised

at the amount of detailed knowledge essential in order that one may diagnose physical defects and employ remedial measures. The books will impress any one with the importance normal physical development has already attained in our public schools.

It is not to be inferred from what has been said that those in charge of education are more concerned about the correction of physical defects than about the maintenance of normal physical development. Henry Panzer has published through A. S. Barnes and Company a teachers' manual of physical education in which he gives in detail exercises that are adapted to promote normal physical development. A reading of this manual leads one to think that most young people are free from major physical defects and that they can grow to maturity sound and well balanced physically if they practice certain exercises that call the muscles and organs of the body into play in natural ways. There would probably not be great need for corrective physical measures if from the beginning children could have the advantages of physical education adapted to the conditions of modern urban and rural life.

Unquestionably this is the direction in which we are moving in the establishment of departments of health and physical education in public school systems and this movement should be encouraged everywhere. Conditions of life are changing so rapidly that our young people cannot make the adjustments necessary to preserve physical vigor and physical well-being without assistance from those who know what is essential for the normal development and proper functioning of the various organs of the body.—*M. V. O'S.*

A New Book on Color for the Psychological Laboratory

"Color In Vision" is the title of a new book on color, published at Chicago, by C. V. Ritter. Its author, Faber Birren, who has contributed two articles to The NATION'S SCHOOLS, has isolated all the factors and demonstrations of color that have bearing on vision.

The value of this book in the psychological laboratory is evident in the fact that there are few, if any, volumes available that take up the visual angle of color without offering the divergent testimony of the physicist or the artist.

For this reason "Color In Vision" is useful. It gives a clear and concise review of color as experienced by the eye. Such things as theories of color vision, visual color primaries, visual opposites and the visual mixtures of color, are discussed and analyzed with a great deal of logic.

No doubt the book will be received with interest by the psychologist as well as by the student of color from any particular aspect. While it is not a volume of esthetics on harmony, it will serve a good purpose in making clear a subject that has hitherto proved very confusing.

It is attractively bound, and evidently is a rather limited edition. For a book on color, the physical format has been cleverly designed. An elaborate chart is included, tinted by hand. The cover itself is made of hand colored paper.

Fields of Extracurricular Activities

The activities in which pupils engage in their school, community and home life count greatly in their education. Things boys and girls do are the things they learn. The school, if it is to render its maximum service, must encourage every boy and girl to find satisfaction through participation in the life of the school and its community. Both the school and the larger society need the contributions of youth. Pupil activities in an ideal school are spontaneous and lifelike. They reproduce within the school situations typical of social life, somewhat purified and idealized, but always vital.

Extracurricular activities fall into three distinct fields: participation in government, including home rooms and class organization, all activities that can grow out of the curriculum, and supplementary school agencies, such as Boy Scouts. Every school needs to have a constructive policy for stimulating, guiding and, if necessary, limiting pupil participation in extracurricular activities.

How Much Preparation?

One of the arguments that have been advanced against the single salary schedule is that it would cost too much, since the increased expenditure for instruction would be considerable if all teachers placed in the elementary schools were college graduates and put on the same salary schedule as high-school teachers.

However, no attempt should be made to economize at the expense of the elementary school. The main point for boards of education to discuss and to decide in connection with the single salary schedule is whether elementary-school teachers should have the same number of years of educational and professional preparation as high-school teachers.

Your Every-day Problems

JOHN GUY FOWLKES, THE UNIVERSITY OF WISCONSIN, DIRECTOR

This department will be devoted to an informal discussion of problems arising in the every day life of principals and superintendents. The following are excerpts from letters that have been received recently by the director of this department. Similar inquiries are invited, and should be addressed to Dr. John Guy Fowlkes, Department of Education, University of Wisconsin, Madison, Wisconsin.

The Auditorium or Assembly Period

Several questions have been raised recently concerning the school assembly or auditorium periods. Such matters as best time, optimum length and nature of work are some of the factors that have been mentioned. The following discussion is based on a study of this problem made during the summer session of 1926 at the University of Wisconsin.

Importance of the Auditorium Period

The value of the auditorium period has been underestimated by some school administrators in the past, or the period has presented such a problem that it has been more or less neglected. The auditorium period varying in length in various school systems affords an opportunity to develop and maintain what is commonly termed "school spirit." It is impossible to define school spirit, yet its absence or presence can be felt as one crosses the threshold of the school. It is not confined within the school walls, but permeates the community and outlying districts. This spirit can be developed through the cooperation of students in presenting something worth while before an eager audience.

Through the presenting of various programs the student is given an opportunity for self-expression. His effort to make himself understood clarifies his thinking and gives added skill in various forms of expression. Students accustomed from childhood to an audience gain much in confidence and poise, qualities that serve them well after school as well as in school. Other values that frequently are outgrowths of the judiciously handled assembly period are the solving of the problem of discipline and the control of athletics in a sportsmanlike manner.

After auditorium periods have been scheduled, the next problem is that of choosing a program for the period. Live topics that will offer an abundance of material may be selected by a program committee from the following fields: current events, biography, literature, art, music, nature, history, ethics and hygiene. The following are possible and probable programs:

1. Biographical—Abraham Lincoln; Charles Lindbergh; George Washington; Henry Ford.
2. Programs by school organizations—Hi-Y club; French club; Latin club; dramatic club; debating society; Treble Clef; orchestra; glee club; band.
3. Pep assembly—in connection with athletic events or other outstanding events in which the entire student body is participating.
4. Pantomime—characters dressed in appropriate costumes to represent athletics, scholarship, music, dramatics, loyalty, pep and hard work.
5. Visual instruction—educational films.
6. Talks by members of the faculty; prominent people of the community, such as doctors, bankers, lawyers, dentists, nurses, merchants and farmers; transient speakers, such as representatives of various educational institutions and salesmen who may be selected by the program committee.

Time of Auditorium Periods

One of the questions concerning assembly periods is that of the time of day at which they should be held. The accompanying table shows the distribution of assembly periods throughout the day in thirty high schools ranging from 200 to 1,200 in enrollment and representing seventeen states.

The time seems to be about evenly divided between forenoon and afternoon, there being sixteen schools having assembly in the forenoon and fourteen in the afternoon. The most popular periods for the assembly were mid-forenoon and immediately after noon.

The average daily time given to assembly periods for the thirty schools studied was twenty-two minutes, and the median daily time was twenty minutes. The total time for a week amounted to 100 minutes for both median and average.

Time of Assembly Periods	*Number of Schools*
Opening of school in morning...	5
Mid-forenoon	9
Immediately before noon	2
Immediately after noon	8
Mid-afternoon	6

In a study made by E. E. Evans of the high schools in Kansas, it was found that a large majority of the schools had assembly periods in the forenoon. It was also discovered that the average length of the period was thirty-four minutes and the median length of the period was thirty minutes. Other figures also reported show the average time each week as being fifty-eight and a half minutes.

In the same study by Evans, it was discovered that of ninety-five principals, fifty-three arranged their own programs for assembly, and more than one-half of the remainder acted as chairmen of faculty committees for the purpose of arranging programs. The principal should play an important part in high-school assemblies since it offers an avenue of approach whereby he may establish contacts with a larger group of pupils than can be found in any other school situation.

It is of prime importance, however, that the principal avoid a monopoly of time for routine practices. Nothing can kill interest more quickly than an atmosphere of dry ceremony. All except the necessary announcements should be posted or left in the home rooms and those that must be given should be given with dispatch. The principal will occasionally find that the assembly period offers him an excellent opportunity to impress his ideals upon the group in short well prepared talks.

Outside Speakers Interest Pupils

In order to interest pupils in what is taking place in the world and to stimulate action in the world's activities, it is an excellent plan when a speaker is desired, to seek one who is not a part of the school organization. These speakers may be asked to discuss their own vocations, telling the student body about the work of these vocations and what is necessary for success in them. Any community has among its citizenry physicians, dentists, lawyers, ministers, engineers, managers of offices and of stores, farmers and others who can be induced to speak during auditorium periods. Such short addresses give the pupils some understanding of the problems of various vocations and may direct their interests into productive channels. It is necessary for the principal or director of assembly periods to select speakers judiciously so that the egoistic element of one vocational group does not misinform in one way or another the student body. Obviously, speakers should be given an understanding as to what is desired of them.

Demonstrations of health projects may be secured through nurses and physicians of the community and likewise demonstrations of the care of the teeth. Discussions of methods of handling and writing checks may be given by bankers, discussions of community improvement may be given by city officials or others, and many other projects may be used to show pupils the necessity for and desirability of civic improvement. These discussions and demonstrations may stimulate interest and help to create a strong civic pride.

It is not always the best thing for an administrative officer to be too selective in his choice of speakers. Particularly in a small town it will be necessary to use much tact in the selection of speakers. In some cases it may be wise to invite several members of the same vocation to discuss the problems of their work at the school.

The Auditorium Period at Gary

One of the best illustrations of the administration of the auditorium period is found in the public schools at Gary, Ind. A specified auditorium period is supervised by a teacher who does nothing else but auditorium work. She is responsible for the conduct of the period and also for the arrangement of programs. She receives the cooperation of other teachers, the teacher of music, for instance, when she is arranging for the group singing for the first part of the auditorium period.

Four auditorium periods are held every day, each of which is an hour long. The lower grades have their own period as do the upper grades. Such a period is compulsory for the lower grades but is voluntary for the upper grades. The upper grade pupils can elect auditorium if they wish. More than half the pupils of the upper grades elect the auditorium period and are greatly interested in it. There is one period for the lower grades in the morning and one in the afternoon. The same arrangement applies to the upper grades as well. In this way all the grades of one building are easily cared for.

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cording to parliamentary practice and these officers take charge of the entertainment part of the auditorium periods. Their powers may be gradually increased by the administration. The idea of the period is to place all activities on a cooperative basis so that practically all pupils have an opportunity to participate in one way or another. Many of the programs are staged by the pupils. These programs are not the result of intensive drill or application but are merely the efforts of pupils trying to find a social means of expression. The programs are, therefore, not finished products but there is keen interest on the part of the pupils in the auditorium period.

A plan similar to the one followed in Gary might well be adopted in other places. There need be no fear of a lack of material for the auditorium period, for it has been the experience of the directors at Gary that the person who arranges the program for the period must make a selection from the vast amount of available material.

Certain general administrative problems, such as the maximum utilization of the auditorium and the routing and seating of pupils have been omitted. However, the auditorium or assembly period is one of major importance and should be included on every pupil schedule along with the regular academic and more traditional assignments.

Higher Institution of Learning Is Hope of Negro Race

That the immediate need of the Negro race is more education, better education and higher education, is the summary of a report made by the Bureau of Education following a survey of seventy-nine Negro educational institutions throughout the country. This need exists, the report points out, in spite of the fact that the number of institutions for the higher education for Negroes has more than doubled and enrollments have increased over sixfold in the last ten years.

Upon the shoulders of 48,000 Negro teachers in the United States rests the responsibility of educating more than 5,000,000 Negro youths. Of this number 1,050 are teachers in institutions of higher learning. The remaining 46,950 are for the most part inadequately trained and present a problem for the higher institution.

Vocational instruction is a means of raising the economic status of the Negro, and national social and economic life demands the training of many more professional and technical leaders. At the present time there is approximately one Negro physician to every 3,343 Negroes; one dentist to every 10,540 Negroes. There are in this country only fifty Negro architects, 184 engineers, 145 designers, draftsmen and inventors, and 207 chemists. Negro clergymen number 19,600 but the training and education of the majority of them are extremely limited.

Professional, technical and religious training for Negro leaders rests with the institution of higher learning.

High-School Supervision

High-school supervision has developed naturally from two causes: First, the unprecedented and heterogeneous increased enrollment has caused a more complicated system of organization that requires a greater care in coordination of departments to keep the child the end or aim of secondary instruction; and second, the reorganized objectives of education resulting from a changed educational philosophy have brought to educational leaders the task of bringing to teachers a new conception of their responsibilities toward their pupils.

Many high-school teachers have accepted supervision as a form of "administrative meddling," and why should they not? Tradition has decreed for decades that knowledge of subject matter was sufficient qualification for teaching such subject. Furthermore, the type of supervision they have experienced has too often been by a superior official whose sole or chief reason for promotion was athletic prowess or popularity other than that of ability to supervise.

The day has come when supervisors and teachers must stand on their ability to produce results. The teacher must have specialized training which the supervisory official has neither time nor ability to give. Likewise, the supervisor must have specialized training for his duties. Theorizing and bluffing are giving way before experimentation and standardized results. Likewise, dictatorial supervision is giving way to a cooperative type of teacher participation in solving the problems of supervision.

As the superintendent found his many duties overtaxing and employed the principal to assist in the details of administration, so is there developing a need for a new type of supervisory official who will aid the principal.

As the new type of cooperative supervision proves helpful to teachers, as supervisor and teacher plan and prove their cooperative programs ever with the pupil as the end, the high-school teacher will welcome supervision that will in turn be standardized and rated according to results obtained.

PHILIPS MEMORIAL AUDITORIUM, WEST CHESTER STATE NORMAL SCHOOL, WEST CHESTER, PENNA.
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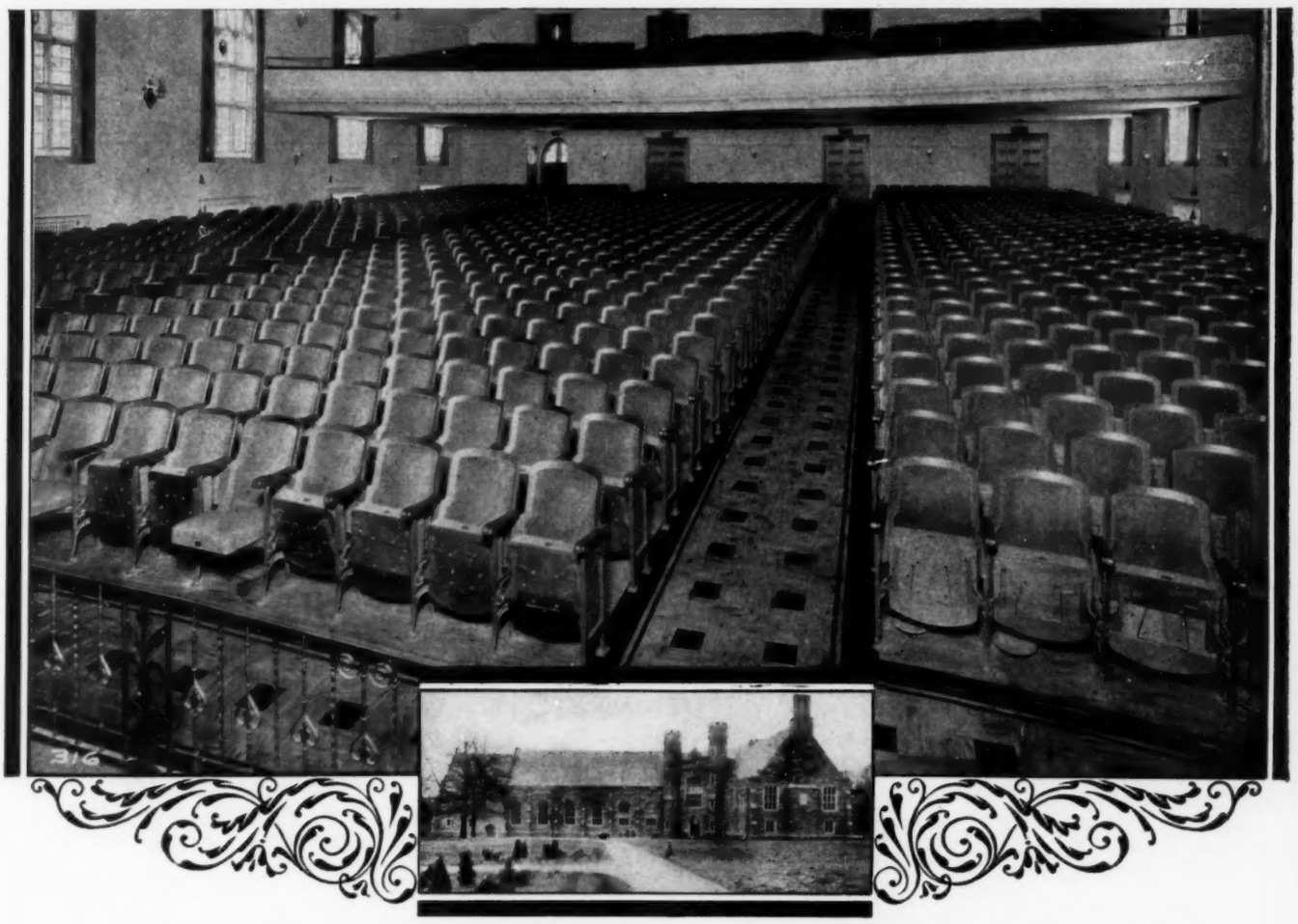

SCHOOL FLOORS NEED NOT BE COMMONPLACE

In the illustration above, note the unusual character of the floor pattern. Light Sienna tiles set off by an occasional square in dark Sienna give the effect of lines of "stepping stones" running down the aisle. Over 20,000 square feet of *Gold Seal* Marble-ized Tile were laid throughout this new school building.

Like all other floors manufactured and installed by the BONDED FLOORS organization, these floors in the West Chester State Normal School have in addition to attractiveness those other qualities so essential in all school equipment – quietness, comfort and durability. In this installation the seats were screwed right down through the tiles. BONDED FLOORS, whether of linoleum or of cork-composition tile, are so soundly built-in that this can be done with perfect safety.

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News of the Month

Educational Concerts Will Be Broadcast This Fall

A group of the country's leading educators have been selected by Walter Damrosch, noted symphony conductor, to act in an advisory and cooperative capacity for the series of educational concerts which a radio firm is sponsoring this fall, it was announced recently.

These concerts, which begin October 26, are the first programs of their kind to be broadcast nationally and on an organized scale to the schools of the country. They will be presented Friday mornings, during the school sessions, and carefully graded so that students of intermediate, high-school and college age will be addressed at different periods.

The first advisory body to be called into consultation by Mr. Damrosch was the committee on music appreciation of the Music Supervisors' National Conference, consisting of specialists in music appreciation, and representing the larger cities from coast to coast. Its official duty is to formulate a standard course of study in music appreciation to coordinate with theoretical and applied music now taught in the public schools of the country. In their new connection, the members of this committee are seeking to make the nationally broadcast concerts an integral part of the accepted school course in music.

Among the city superintendents sponsoring this first nationwide effort in radio education are: David E. Weglein, Baltimore, Md.; Paul C. Stetson, Dayton, Ohio; J. W. Studebaker, Des Moines, Iowa; and Willis A. Sutton, Atlanta, Ga.

While the larger advisory committee will keep in touch with the educational concerts through listening-in and correspondence, a small council consisting of nationally known leaders in many fields of education will meet in New York City each year.

The concerts will be broadcast over a network of stations which includes Stations WJZ, New York; WBZA, Boston; WBZ, Springfield; WBAL, Baltimore; WHAM, Rochester; KDKA, Pittsburgh; WEAR, Cleveland; WLW, Cincinnati; WJR, Detroit; KYW, Chicago; KWK, St. Louis; WTMJ, Milwaukee; WCCO, Minneapolis; KVOO, Tulsa; WFAA, Dallas; KPRC, Houston; WOAI, San Antonio; WHAS, Louisville; WSM, Nashville; WMC, Memphis; WSB, Atlanta; KOA, Denver; WOC, Davenport; WHO, Des Moines; WDAF, Kansas City; WRC, Washington; and WOW, Omaha.

Membership Increases in State and National Associations

The rapid growth in membership of the National Education Association is shown in a report prepared by a committee of the association for "The Yearbook of the Principals' and Supervisors' Association of Dayton, Ohio," and published in the October issue of the *Journal of the National Education Association.*

The total membership in the association is 180,000, as compared with the forty-three original members at the time of its organization in 1857. The total membership in state associations is 560,000. This would indicate that about 32 per cent of the teachers who are members of the state associations are also members of the national association. In Ohio there are approximately 45,000 teachers. Of this number 16,785 or 37.3 per cent, are members of the National Education Association, and 37,117, or 82.48 per cent, are members of the state association.

Instructions for Improving Health of Indian School Children

With the health of the Indian school children in mind, Charles H. Burke, commissioner of Indian Affairs, issued a series of instructions to the Indian superintendents on the reservations.

Suggestions were that a half pint of milk be served to each child at mid-morning and at mid-afternoon in the schools where no noonday luncheon is served; that, in cases where a noonday lunch is served, cows and chickens should be kept and a small garden planned so that fresh milk, eggs and vegetables will be assured, and that in some cases fresh fruits, canned tomatoes, fresh vegetables and whole cereals should be provided with the mid-morning and mid-afternoon milk.

The following series of luncheons was suggested: Monday, cream of tomato soup, baked potatoes, bread, and stewed fruit; Tuesday, baked beans, cabbage slaw, brown bread, milk and brown betty; Wednesday, vegetable chowder, toasted bread, fruit, and cookies; Thursday, cooked leafy vegetables, scalloped potatoes, corn bread, fruit and milk; and Friday, vegetable soup, peanut butter sandwiches, fruit tapioca and milk.

It was also recommended that there should be some kind of an organization that will bring the women of the community together in the school so that their cooperation may be obtained in properly feeding and caring for their children outside of school hours. It was stated that such an organization would undoubtedly aid in improving home conditions.

Correspondence Courses Given by Many Universities and Colleges

There are in the United States, according to L. R. Alderman, specialist in adult education, 106 colleges and universities offering correspondence courses. The advantages of these courses over the regular classroom studies, he pointed out, are that the student may advance as rapidly as his time, ability, and industry will permit, and will thus waste no time waiting for others. Since all lessons are written, he is sure to get good practice in written expression and a much wider range of subjects is

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News of the Month

offered, due to the fact that in an institution it is necessary to find a group of students who desire to study the same subject at the same time before a class can be organized. Another advantage of correspondence courses is that work may be continued throughout the whole year without the interruption of vacations and holidays.

Correspondence work is being carried on to such a great extent that almost any desirable course may be studied through at least one of the many schools offering this service.

Economics of Home Develops Into Specific Course

During the last biennium the subject-matter concerned with economics of the home has developed from a few lessons into a specific unit or course, which has a definite time allotment of six to twelve weeks. This material as now organized may stand as a distinct course in the home-economics curriculum or form a specific unit of some other course in the home-economics program. This new unit or course may be given formally in the last year of the junior high school and in any year of the senior or regular high school. The tendency is to offer it in the eleventh or twelfth year of the high school.

The evolution of this course from an unimportant place is shown by a recent study of home economics in the high schools of the United States. This study shows that departments of home economics in the high schools of every state of the Union offer specific instruction in economics of the home and that the total number of girls enrolled in such instruction is 98,559, as compared with 2,847 enrolled in the former course, which was made up of a number of other subjects.

Undoubtedly the reason for the change from a heterogeneous to a homogeneous course dealing with specific economic problems of the household is that girls of the junior and senior high-school ages help to spend a goodly share of the family income in doing some, and in many cases all, of the family's marketing and shopping.

Will the Lowered Birth Rate Affect the Schools?

Government surveys on educational problems and questions dealing with the provision of adequate educational facilities for the future reveal many interesting facts. In a study which has just been completed, the most striking fact revealed is the steadily and rapidly decreasing birth rate in the United States, which affects the number of pupils entering the schools each year, and which may become an outstanding racial phenomenon in the near future. That number may become stationary despite an increasing population.

"The reduction in the birth rate," the report of the study points out, "is a fact that should not be overlooked. This rate has dropped from 25.1 per thousand population in 1915 in the registration area to 20.6 in 1926." This area included 31 per cent of the whole population in 1915, and 76 per cent in 1925. Infant mortality rates have dropped off materially during this ten-year period. The rate was approximately 102 per 1,000 live births in 1915 and 71.7 in 1925.

Applying the birth rate and the infant mortality rate for each year, this means that 22.5 children per thousand of the population reached the age of one year in 1916, and less than 20 per thousand in 1926. Applying the same rates to the estimated population for each year indicates that 2,239,000 children reached their first birthday in 1916, and 2,292,000 reached it in 1926. This is an increase of a little over 50,000,000 in ten years.

"Any material decrease in the birth rate must in time have its influence upon the number of children who are old enough to enter school for the first time each year. Restricted immigration further reduces the number of, say, six-year-old children. It is quite evident that the number of six-year-old children is not increasing very rapidly from year to year. The 1930 census may show little, if any, increase in the number of children ready to enter school over the number shown in the 1920 census. If these same conditions exist for a number of years, school enrollments will reach a stationary period, especially in the lower grades."

St. Stephen's College Affiliates With Columbia University

St. Stephen's College, Annandale-on-Hudson, N. Y., has become affiliated with Columbia University and incorporated into its educational system on a parity with Columbia College and Barnard College. The president of Columbia University will be also president of St. Stephen's College, and the former head of St. Stephen's will be warden of the college and dean of the faculty and will be responsible for the actual administration.

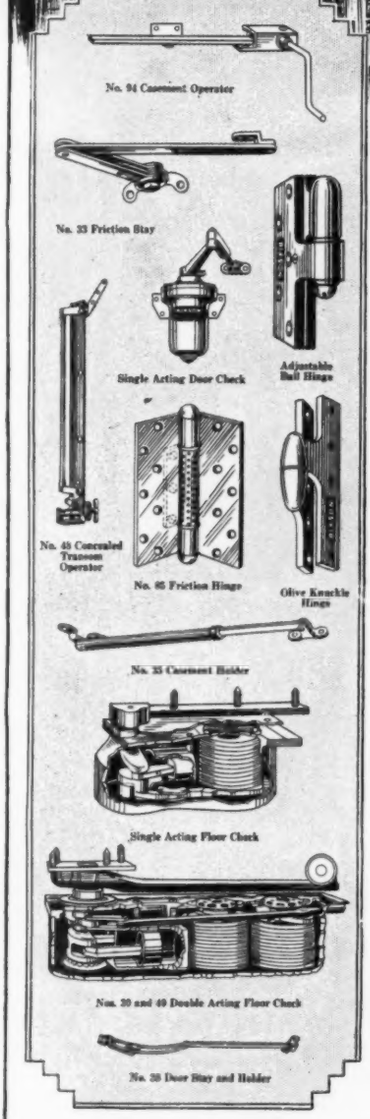
This will enable Columbia to extend the scope of its undergraduate work without making the university larger than is considered educationally desirable. The college becomes a unit of Columbia University, but will remain under the influence and patronage of the Protestant Episcopal Church and will retain its financial independence.

The degree granted by the college will be the bachelor of arts degree of Columbia University "conferred in St. Stephen's College," and will be equivalent in all respects to the degree of the university "conferred in Columbia College."

Increase in Attendance at Colleges and Universities Noted

In the thirty-six years that followed 1890 the attendance at colleges and universities increased 529 per cent, according to statistics compiled in a recent survey. During the same period the attendance at normal schools increased 676 per cent. These increases were strikingly great but were below those of the high schools, not including junior high schools, in which the increase was 1,055 per cent.

Rixson Everywhere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News of the Month

Higher Percentage of Pupils Attending Public Schools

A steady increase in the percentage of school pupils attending public schools in preference to private schools is shown in a recent study.

The study reveals a rapid decline in the birth rate in the United States since 1915.

The American public school is experiencing a stupendous growth and prosperity. The percentage of pupils in public schools in the United States as compared to private schools is steadily increasing through the years. The latest figures on the subject show that of elementary pupils about 92 per cent are now in public schools while 89 per cent were in such institutions a generation ago. Sixty per cent of the pupils in secondary schools attended institutions supported by the public in 1890, while 91 per cent of such pupils attended public school in 1926. Seventy-seven per cent of normal pupils went to public schools in 1890 but that number had grown to 93 per cent by 1923. Where 13 per cent of college students attended institutions supported by the public in 1890, 36 per cent now attend institutions so supported.

Cost of Education in Elementary Grades Increases

That the cost of education in the elementary grades is increasing was shown in the results of a study, conducted in Washington, D. C., of reports of various departments of education all over the country. The study revealed that in 1920 the cost was about $40 a pupil. The amount had increased to $59 a pupil by 1924, and in 1926 it was $63 a pupil.

Agricultural Agents Discuss School Problems

It has been announced by Dr. C. H. Lane, chief of the agricultural education service of the Federal Board of Vocational Education, that the agricultural agents of the Federal Board of Vocational Education recently held a series of round table discussions at which the program for the coming year was discussed. The work of the agents is to secure the cooperation of the state boards of vocational education. Some of the problems discussed were organization work, methods of teaching and the expansion of different types of schools for farm boys and girls.

Schools for Blind Show Increase in Enrollment

Government statistics show that since 1918 there has been a twenty-two per cent increase in enrollment in seventy-five government, state and city controlled and five privately owned schools for the blind. The number of faculty members has increased sixteen per cent. About fifty-five per cent of the total enrollment of 6,084 pupils in 1927 were boys and forty-five per cent girls.

The total expenditures in sixty-seven of the schools reporting this item amounted to $3,993,404, and the total receipts were $4,028,145. The value of grounds, buildings, and equipment for these institutions was $19,434,232.

Three Regional Scholarships Offered by Yale

Three "regional scholarships" have been established by Yale University. They are intended primarily for students from southern, southwestern and far western states, but will be withheld from those sections if properly qualified and acceptable candidates do not appear. Rhodes scholarship standards will govern in the selection of candidates—character, capacity for leadership, intellectual ability and physical vigor.

Weight will be given by the committee on award to recommendations from alumni and school authorities. The scholarships are available in Yale College and in Sheffield Scientific School, and entitle each holder to $750 in the freshman year and $500 in each of the remaining three years.

Arts and Science Courses Claim Greatest Popularity

Thirty-four per cent of the resident students enrolled in land-grant colleges and universities during the school-year 1925-26 were enrolled in arts and science courses, according to an announcement in the September issue of *School Life*.

Of the 142,111 resident students enrolled in land-grant institutions of the United States during the school year 1925-26, more than a third, 34 per cent, were registered for courses in arts and science, 20.5 per cent in engineering courses, 9 per cent in commerce and business, 8 per cent in agriculture, and 7.2 per cent in professional education.

Agriculture Students to Hold Congress in Kansas City

Students of agriculture from schools in all parts of the nation will meet in Kansas City, Mo., from November 17 to 23, for the third annual National Congress of Vocational Agricultural Students, to be held in connection with the American Royal Livestock Show, the chief of the agricultural education service of the Federal Board of Vocational Education, Dr. C. H. Lane, announces.

Dr. Lane is chairman and manager of the committee in charge of the congress. In addition to the third conference of vocational students, a vocational livestock exhibit, a livestock judging contest and a meat judging contest are scheduled.

The complete program for the congress consists of

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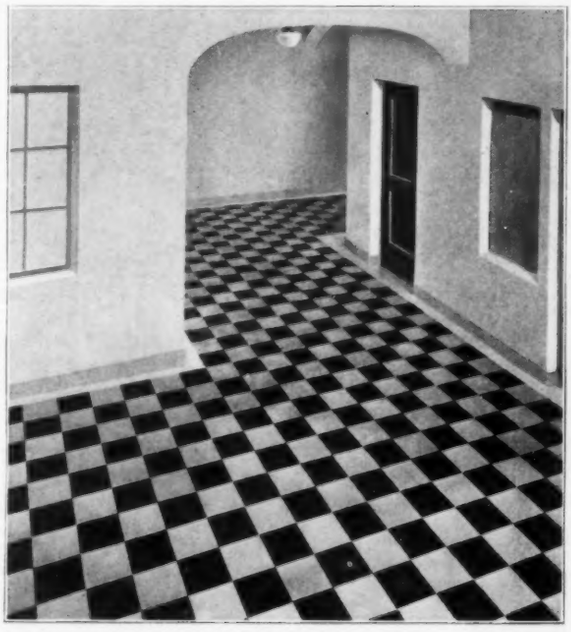

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BENCHES

FIG. 732—"HALLOWELL" WORK-BENCH OF STEEL THROUGHOUT

FIG. 923—"HALLOWELL" STEEL WORK-BENCH WITH PLANK OF LAMINATED WOOD IN FRONT

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Vocational Training Benches

Here are two "HALLOWELL" Work-Benches, one of Steel throughout; the other just like it except for the plank of laminated wood in front.

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News of the Month

judging contests, livestock exhibits, vocational exhibits, banquets, luncheons, night horse shows, tours of Kansas City industries, and various other entertainment features offering a rare educational opportunity for those in attendance.

The vocational livestock exhibit will have as superintendent C. L. Angerer, Jefferson City, Mo. The contest will be open to animals from any one school which have been winners in a school contest. All animals to be eligible must have been bona fide property of the exhibitor at least four months prior to the date of entry and must have been fed and cared for by the exhibitor during that period, with the exception of lambs, for which the period is three months.

The third conference of vocational agricultural students will be held at the same time. The program for the conference is arranged for its educational value to the vocational teachers and their pupils and to portray some of the activities of the program of vocational education in agriculture in the United States. Prizes have been offered by various organizations desiring to encourage vocational agricultural instruction, for judging of livestock by vocational agricultural students. Participation in the contest is to be limited to one team of three students from each state. The superintendent of the contest is J. A. Like of the Federal Board of Vocational Education.

A motion picture will be made of the activities of the vocational congress and of the American Royal Livestock Show.

Scholarships Provide Education for Oriental Women

More than seventy women from oriental countries, it is reported, have already availed themselves of the Barbour scholarships which provide $800 a year and university fees for attendance at the University of Michigan. The authorities are seeking to interest graduates of Russian and Turkish universities to join those from Chinese, Japanese, Indian, and Korean universities, as well as representatives of oriental races from the outlying parts of the United States.

Clarence C. Little, president, University of Michigan, says that the benefits already received from the occidental training applied by oriental women to service in their own communities are inestimable and that they represent a "priceless experience of contact of American students with young people from a diversity of foreign countries."

The Hon. Levi L. Barbour, former regent of the University of Michigan, while traveling in the Orient some years ago recognized the need there for scientifically and broadly trained women, particularly for women trained in medicine. The remarkable careers of three women, two from China and one from Japan (early graduates of the University of Michigan), so firmly convinced him that such training was a success that on returning to Michigan he made provision for the scholarships now offered.

Mr. Barbour died in 1925 but the income from the fund he set aside will provide for a larger number of students in the near future.

The scholarships, yielding $800 a year and the university fees, are expected to defray the living expenses during the college year. Travel, personal expenses and vacations must be provided for from personal resources, and funds sufficient for the student's return trip should be kept on deposit with the university. An estimate of the expenses at the University of Michigan for the college year of thirty-six weeks is $745.

In making the award of a scholarship, which is done annually by a committee on a basis of merit, consideration is given to the character of the candidate, her physical condition, her scholastic attainment, her fitness for classroom purposes, marked ability in some special field, and desire to return to her native land for service. On account of the rapid progress made in the education of women in the Orient, preference is given to women who are graduates of oriental colleges. No definite number of scholarships has been allotted to any one country, and no race restrictions or religious requirements are imposed.

Working Pupils Make High Grades

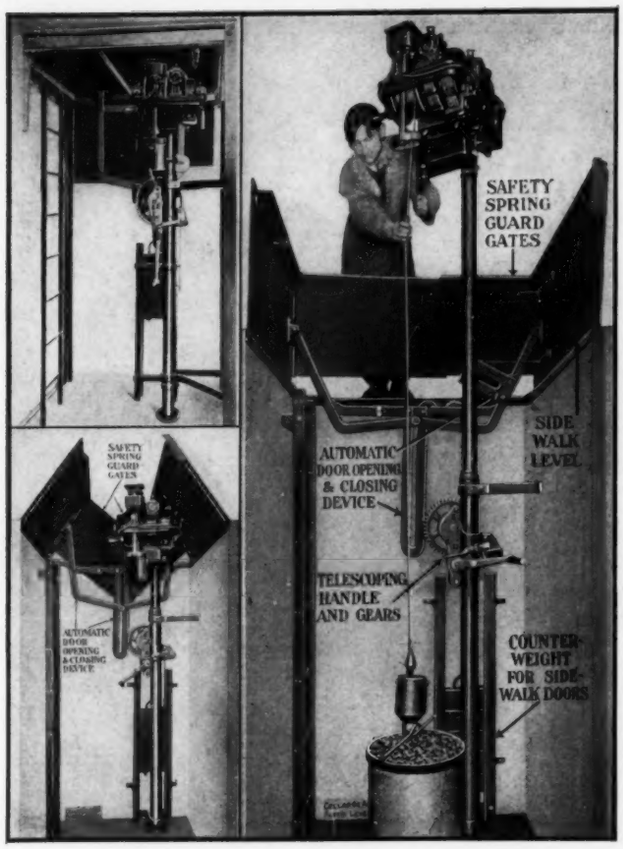
The school grades of unemployed pupils in the high school at Joliet, Ill., are only 1 per cent higher than the school grades of the employed pupils, according to a study made in connection with a survey of part-time education. Those pupils who were employed devoted approximately two hours a day to work outside of school hours, these hours coming before school, after school and on Saturdays. The school grades of 250 employed and 1,650 unemployed pupils in the Joliet township High School for the school year 1927-28 were the basis of the study.

The reasons the pupils gave for working were as follows: 58 per cent of the pupils wanted spending money; 27 per cent said it was necessary "to stay in school," "to help parents," and "to buy clothes and books;" 6 per cent wanted to occupy their spare time; and 9 per cent referred to car fare, savings accounts, money for college, vacation funds or experience. Eighty-two per cent of the working pupils added that the work did not interfere with their accomplishments in school. The average weekly salary of each pupil employed was $4.82 for the boys and $2.87 for the girls.

Two Educators Appointed to Assist in Engineering Survey

A. A. Potter, dean of the engineering school, Purdue University, and Arthur N. Johnson, dean of the engineering school, University of Maryland, are two new appointees to the engineering staff of survey of the land-grant colleges. Dean Potter was president of the Society for the Promotion of Engineering Education which conducted an extensive investigation in that field last year, and Dean Johnson made a detailed study of the reports of the society. Due to their knowledge of existing conditions, acquired during the investigation, it is expected that their services will be invaluable.

At the present time they are engaged in assisting in the preparation of a questionnaire and schedule on engi-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OHIO	169 Schools	KANSAS	56 Schools
PENNSYLVANIA	162 Schools	MINNESOTA	54 Schools
NEW JERSEY	138 Schools	MISSOURI	46 Schools
MICHIGAN	107 Schools	MARYLAND	33 Schools
MASSACHUSETTS	98 Schools	WISCONSIN	24 Schools
IOWA	68 Schools	DISTRICT OF COLUMBIA	23 Schools
ILLINOIS	62 Schools	INDIANA	22 Schools

G&G Hoists are used by schools in 44 states, and are now *standard equipment* with Boards of Education in Pittsburgh, Des Moines, Seattle, Louisville, Kansas City, Mo., Kansas City, Kans., Cleveland, Baltimore, Jersey City, Newark, Boston and New York.

Furnished in hand and electric models. The electric models are particularly favored in schools. In New York City, for instance, where 165 schools are G&G equipped, 140 of these hoists are the popular Electric Model E one-man type.

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News of the Month

neering in conjunction with specialists in Washington, D. C. After the completion of the questionnaire, it will be sent to a special advisory committee composed of leading members of the engineering faculties in a number of the colleges for final revision. It will then be sent to the land-grant colleges throughout the country for the collection of data on engineering education.

New School for Oil Workers in Oklahoma

The Federal Board for Vocational Education has, as a phase of its services to the states, conducted certain training courses from time to time for representatives selected by the various state boards for vocational education. The state board of Oklahoma had a representative from an oil company in Ponca City, Okla., attend one of these conferences several years ago. Following this he returned to Ponca City and began to develop a program of evening classes for oil workers with a view to assisting them in becoming more proficient and in preparing for future advancement. In this work he had the benefit of the advice and financial assistance of the state board of Oklahoma.

As the evening-school program developed it attracted the attention of officials of the oil company and it was decided to inaugurate a thorough-going program of education which would be made available to every employee of the company. Arrangements were made for the erection of buildings at Ponca City to house an industrial institute, three units of which are already completed.

A comprehensive program of instruction is now being prepared with a number of individuals studying to qualify as teachers in the new institution.

More Night Schools Urged for Adult Education

Education cannot reach "all the children of all the people" unless it also reaches "all the people of all the children," L. R. Alderman, specialist in adult education, declared in a statement urging the establishment of more evening schools.

The most potent influence in the life of a child, according to Mr. Alderman, is the influence of adults upon his mental growth. He asserted that adults will attend evening schools if given an opportunity and an invitation.

Public sentiment toward the slogan, "Educate all the children of all the people," has taken form in compulsory school attendance laws in every state of the Union. The strength of this sentiment is revealed by the enforcement or lack of enforcement of these laws.

A checking of our achievement in education reveals the fact that we have not reached all the children of all the people. The American Academy of Sciences reports that of the 1,500,000 men examined for the draft in 1917, young men from 18 to 35 years of age, 31 per cent were given the Beta classification test, which is the test provided for those who could not read simple English.

The simple truth is that we cannot reach all the children of all the people unless we also reach all the people of all the children. The most potent influence in the life of a child is the influence of adults who not only have control of his body but who shape his mental growth as well. The most effective, and in many cases the easiest, way to reach children is through their parents.

We have no compulsory school attendance law for adults, hence no assurance of their attendance at schools which might be provided for them, but we now have demonstrated for us all the proof any scientific investigators might require, that adults, if given an opportunity accompanied by the right kind of invitation, will attend classes in large numbers.

For evidence of this fact, the Department of Superintendence of the National Education Association is finding in evening schools the opportunity to reach those who need help, to increase the earning power of men and women who need this power, to improve family relationships and to make better citizens.

Boston Educator to Establish National Education Departments Abroad

Based on the results of a year's study abroad, Dr. Walter S. Athearn, dean of Boston University School of Religious Education, Boston, Mass., expects to formulate plans for an international basis of education along the lines of morality and religion.

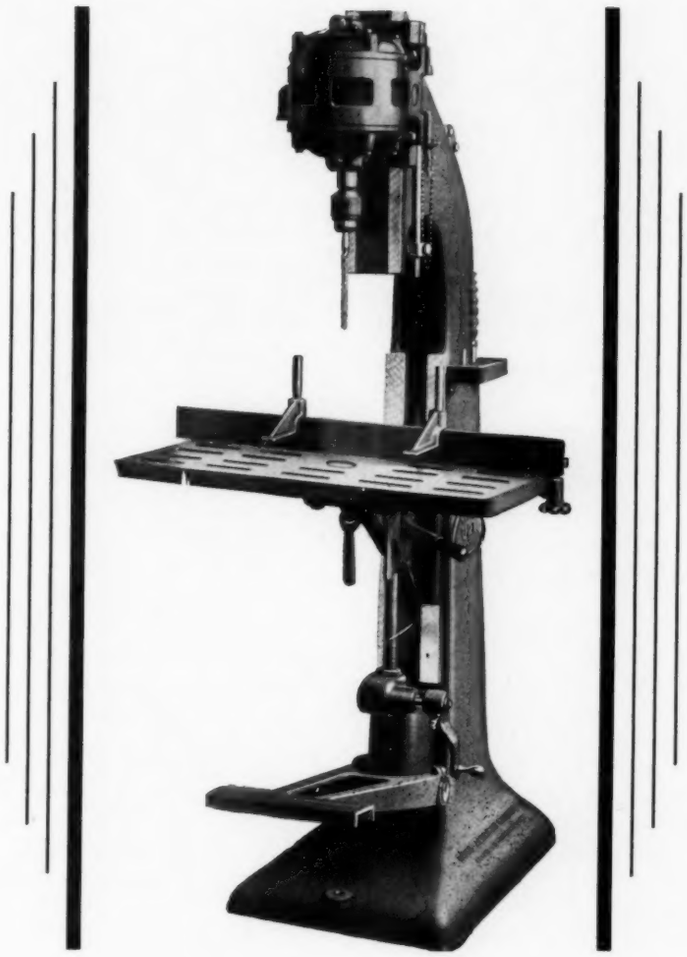
His travels will carry him through Egypt, the Near East and all of the European countries. He is chairman of the division of character, moral and religious education of the World Federation of Educational Associations, and will establish headquarters in Geneva, Switzerland, from which he and his aids will work. He expects to establish a national department of education in each country with the help of his colleagues, and his progress in this undertaking will be reported to the next conference of the World Federation of Educational Associations which will be held in Geneva in August, 1929.

New York Principal Resigns After Forty-Five Years of Service

With a record of forty-five years of service behind her, Emma L. Johnston, principal of the Maxwell Training School for Teachers, Brooklyn, N. Y., has retired. During her years of service she has instructed more than 12,000 graduates. She has served as principal for twenty-four years.

Her main ambition during the last few years, she pointed out, has been to establish a four-year course in the school so that the credits given will be recognized by other colleges and universities. Recently the plan for the four-year course won the approval of the directors of the institution.

Frederick L. Holtz, head of the Model School, a part of the Maxwell Training School, will succeed her temporarily.



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Educational Dept.

BELOIT **WISCONSIN**

News of the Month

Bureau of Standards Opens Courses to Selected Students

The educational committee of the Bureau of Standards of the Department of Commerce has started a series of ten courses in scientific and technical subjects to be given before and after working hours during the coming winter. These courses began on October 1.

These courses, it is explained, are open to all persons who, in the opinion of the instructor, are properly qualified for them. In the case of employees of the bureau, the approval of the section chief must first be secured. The fees for these courses are moderate.

The subjects covered this year are: advanced optics; Fourier series and spherical harmonics; Newtonian potential function; Einstein's relativity and theory; analytical mechanics; chemical thermodynamics; advanced inorganic chemistry; ceramic petrography; Heaviside's electrical circuit theory; elementary ceramics.

Each course is given by an expert in that particular

Forthcoming Meetings

Arizona Education Association.
President, J. O. Mullen, Jerome.
Secretary, W. T. Machan, principal, Creighton School, Phoenix.
Annual Meeting—Phoenix, November 8-10, 1928.

Arkansas Educational Association.
President, H. L. Turner, State Department of Education, Little Rock.
Secretary, H. L. Lambert, 219-220 Glover Bldg., Little Rock.
Annual Meeting—Little Rock, November 14-16, 1928.

Delaware State Education Association.
President, M. C. Wagner, principal, Wilmington High School, Wilmington.
Secretary, Robert E. Schilling, superintendent of schools, Milford.
Annual Meeting—Newark, November 8-9, 1928.

Florida Education Association.
President, George W. Marks, superintendent, Volusia County, De Land.
Annual Meeting—Orlando, November 30-December 1, 1928.

Idaho Education Association.
President, D. A. Stephenson, Nampa.
Secretary, John L. Hillman, 331 Sonna Bldg., Boise.
Annual Meeting—Pocatello, December 27-29, 1928.

Minnesota Education Association.
President, Leonard V. Koos, University of Minnesota.
Secretary, C. G. Schulz, 919 Pioneer Bldg., St. Paul.
Annual Meeting—Minneapolis, November 8-10, 1928.

Montana Education Association.
President, R. H. Wollin, principal, Custer County High School, Miles City.
Secretary, R. J. Cunningham, 9 Kohrs Block, Helena.
District Meetings—October 24-27, 1928.

New Mexico Educational Association.
President, A. O. Bowden, New Mexico State Teachers College, Silver City.
Secretary, John Milne, Albuquerque.
Annual Meeting—Albuquerque, November 1-3, 1928.

North Dakota State Education Association.
President, S. J. A. Boyd, Langdon.
Secretary, M. E. McCurdy, 11 Magill Block, Fargo.
Annual Meeting—Grand Forks, November 7-9, 1928.

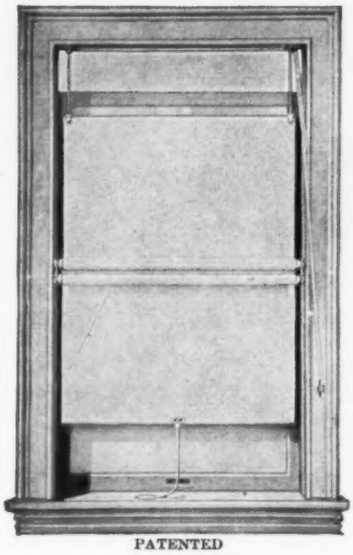
Pennsylvania State Education Association.
President, Joseph F. Noonan, Mahanoy City.
Secretary, James H. Kelley, 400 N. Third St., Harrisburg.
Annual Meeting—Reading, December 27-28, 1928.

Rhode Island Institute of Instruction.
President, Howard Edwards, Rhode Island State College, Kingston.
Secretary, Clarence W. Bosworth, principal, Cranston High School, Auburn.
Annual Meeting—Province, October 25-27, 1928.

South Dakota Education Association.
President, Lyman M. Fort, principal, Mitchell High School, Mitchell.
Secretary, N. E. Steele, 3 Perry Bldg., Sioux Falls.
Annual Meeting—Mitchell, November 24-28, 1928.

Washington Education Association.
President, Mae Mark, 912 S. 11th St., Yakima.
Secretary, Arthur L. Marsh, 707 Lowman Bldg., Seattle.
Division Meetings—October 25-26, 1928.

West Virginia State Education Association.
President, Mrs. Bertha Filson, superintendent, Mason County, Point Pleasant.
Secretary, J. H. Hickman, 403-405 Capital City Bank Bldg., Charleston.
Annual Meeting—Wheeling, November 15-17, 1928.



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News of the Month

field, the instructors being Dr. T. L. de Bruin, University of Amsterdam, and research fellow of the International Education Board; Dr. Tobias Danzig, University of Maryland; Dr. L. H. Adams, Geophysical Laboratory; Dr. Louis Cohen, Signal Corps Research Laboratory; and Dr. Paul H. Heyl, Dr. Raleigh Gilchrist, Dr. Herbert Insley, and R. V. Stull, Bureau of Standards.

These educational courses were started twenty years ago, and each year an opportunity has been given to the younger men and women on the bureau's staff and outside to perfect themselves in physics, chemistry, mathematics and allied subjects. Authority for the work is contained in a joint resolution of Congress in 1892, opening the Government's bureaus for research and educational purposes.

The fees charged place the work on a self-supporting basis, nearly every year showing a small increase in the reserve fund which is added to the sum available to pay the expenses of instructors, prepare the necessary copies of lectures and carry the work through occasional "lean years."

Plan Large Library at Michigan State Normal

The Michigan State Normal College is to have a new library. This has been definitely decided and plans are being prepared for a new building to be erected at a cost of about $250,000. The new building will be nearly twice as large as the old library and will provide space for 120,000 volumes.

University of Paris Reports Increase in Women Pharmacists

More than a third of the classes in pharmacy at the University of Paris are girls, according to an interview with the dean of the faculty summarized from the *Revue de l'Enseignment Secondaire des Jeunes Filles.* This "precipitate rush to pharmacy," the summary states, is a development since the war, and with the advent of so many more students into the field it will soon be overcrowded.

"Girls were never so much interested in pharmacy as a career as they are now," said the dean. "The movement toward this profession is precipitate and intense. Before the war women with pharmacies had mediocre success. Druggists must give advice frequently and through a prejudice the public isn't so apt to ask women to help them.

"This prejudice, formerly so keen, has not wholly disappeared as yet. The war reduced it, because many pharmacists were mobilized, and in order to keep the pharmacies open at all the help of the first comer had to be accepted and the law was not always complied with. The wife of a druggist took possession; the public became accustomed to seeing a woman about, and it is being educated little by little.

"The reason for the increase of girl pharmacists is more general than just the improved chance of success. Women are finding it necessary to obtain employment and it has become much more customary to finish the course of the secondary school. The bachelor's degree earned there, so rare for girls not so long ago, leads directly to pharmaceutical studies.

"When deciding upon a choice of a profession, law and medicine appear too heavy, and in those professions the life is a hard one. Pharmacy was discovered but recently. The girls rushed headlong into it. They make up a third of the classes at the University of Paris.

"They are even more industrious than the men—their work is more sustained. They do well in the examinations. In proportion to their number they earn as many prizes in the annual examination as the men do. All of them obtain their diplomas."

University of California Offers Course in Italian Culture

A chair of Italian culture has been endowed at the University of California, Berkeley, by the Italians of California, according to a late report. This is said to be the only separate and autonomous department of Italian in any American university. For the ensuing year a member of the faculty of the Royal University of Rome will fill the new chair as a visiting professor.

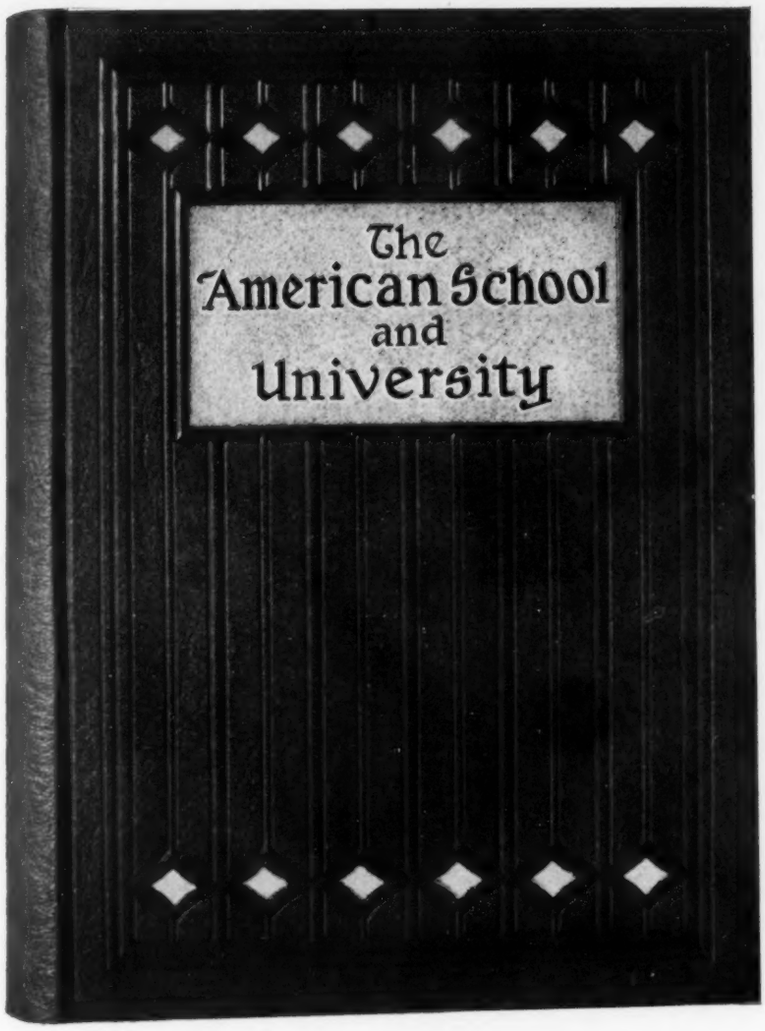
University of Wisconsin Graduates to Help Freshmen

Five graduate students of the University of Wisconsin will assume this fall the responsibility of assisting first-year men students in the selection of their courses and in their adjustments to college life. The plan had its inception in the university last year.

The system is continued in the belief that graduate students, themselves just finished with undergraduate work, can render more acceptable service to new students than older men whose student days are more remote. The administrative assistants, as the graduate advisers are called, are under the supervision of the junior dean of the university.

Accidental Deaths of School Children Decrease

Accidental deaths of children of school age in the United States are about 20,000 a year, according to the National Safety Council, New York City. Actual statistics prove that safety work in the schools will save 50 to 75 per cent of these. This work can be done without extra time, extra teachers, or extra expense and with a greatly increased vitalization of the curriculum. Statistics for the country as a whole show that while the accidental deaths of persons over fifteen years of age are going rapidly upward, the accidental deaths of children of school age have been decreasing ever since safety work was seriously started in the schools in 1923.



The 1928-29 Edition is now ready. Have you ordered your copy? The price is $5.00.

NECESSITY IS THE MOTHER OF PUBLICATIONS

THE need which begot this new yearbook is in one respect an occasional and in another a constant one. To all who are responsible for enlarging and maintaining America's educational facilities comes the occasional need for new plant and equipment, and the constant need for efficiency in the use and upkeep of existing buildings and grounds.

It is to meet the demand for a compact and authoritative reference book covering both phases of this important field that THE AMERICAN SCHOOL AND UNIVERSITY has come into being. But the present volume makes its bow, not as a new-born babe among the already impressive list of educational publications, but rather as a lusty youth growing, we hope, towards a vigorous and efficient maturity. For the new yearbook is in reality an outgrowth of The University Purchasing Guide, which for several years has been serving an important section of the educational field, and which was purchased some months ago by the present owners, a new corporation affiliated with the publishers of The American City Magazine and The Municipal Index.

In enlarging the scope of the yearbook and in gathering the impressive series of articles which comprise the present volume, exceedingly valuable aid has been given by the Editorial Board of Advisors. To these cooperators who have written articles or offered helpful suggestions, as well as to other authors the editors express their hearty thanks.

For the convenience of the boards of education, college trustees, superintendents and headmasters of schools, purchasing agents, architects and others who will read and consult this yearbook, its contents have been divided into the nine sections listed on the flyleaf facing the title page. Not the least important feature of the book, we are sure, will prove to be the "condensed catalogues" of materials and equipment whose grouping corresponds to that of the text pages and immediately follows the reading matter in each of the first seven sections.

Among the most notable of THE AMERICAN SCHOOL AND UNIVERSITY'S new features is the Directory of Architects, which comprises Section IX. Here are listed, for the first time, the names and addresses of 775 architects who during the last five years, have designed three or more school or college buildings costing $50,000 or more each, the name of each architect being followed by a listing of three of his typical educational buildings.

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News of the Month

American Education Week to Be Observed in November

The week of November 5 to 11 has been set aside this year for the observance of American Education Week. The occasion was instituted in 1920 by the United States Bureau of Education, Washington, D. C., to stimulate enthusiasm for education, and it is now promoted each year by the American Legion, the National Education Association, parent teacher associations, school authorities and other organizations interested in education. It offers an exceptional opportunity for parents and others to acquaint themselves with the work of the schools.

Cadet Teachers Given Practical Training in Teaching

As part of their practical experience, cadet teachers from Northeast Missouri State Teachers College, Kirksville, Mo., are placed for a period of three months each in full charge of a room or department in one of the town, village, consolidated or rural schools of which the college has supervision. This is in addition to experience gained in demonstration schools maintained on the campus, which have an enrollment of 800 pupils.

Cadet teachers have the assistance of instructors in different departments of the college, and work is under the supervision of a director and an assistant. The service is given without remuneration, but the cadet teachers are considered as regularly enrolled in teachers college, and receive for satisfactory work ten hours of credit in education.

"Go to the Polls" Campaign in Evansville Schools

Politics in the public schools sound like the "last straw" on the face of it, but politics in the schools under the plan of John O. Chewning, superintendent of schools, Evansville, Ind., presented to the board of education and unanimously and enthusiastically accepted by that body, is a different story.

In brief this plan as outlined calls for patriotic exercises in all of the schools the morning of election day in which the responsibilities of the franchise will be stressed. Schools will be dismissed then in order to permit the children to assist in getting out the vote. This, in the opinion of Mr. Chewning, would be a fine lesson in practical citizenship.

In support of this plan Mr. Chewning says:

"The public schools form the largest arm of the government. Why should the schools not render assistance to the government on its most critical day—election day? At present, according to statesmen and leading students of government, the most alarming symptom in our government is the indifference of the people to the ballot box. Help could be given by the schools in remedying this unfavorable condition.

"Surely, if boys and girls come out of schools with the idea firmly implanted in their minds that it is not only a privilege, but also a duty, to vote, then the next generation will see a much higher percentage of eligible voters casting their ballots on election day and consequently a much greater percentage of citizens taking an interest in their local, state and national governments.

"It also may be that following dismissal of school parades will be formed through the various districts, headed by school bands, and bearing placards urging all to do their duty.

"Then as the reward, each child after the election will be awarded honor citizenship badges if all the voters from his home exercised their franchises.

"This, it is believed, despite criticism that may come from certain quarters, is a good plan. It will not only serve to remind parents, no matter what their political affiliation, that they are dutifully bound to vote, but it will act as an early influence in the lives of school children and will bring to them a practical knowledge of the polls, the ballot and election machinery they might not otherwise acquire until a much later date.

"The idea to stage parades on city streets and hold programs of a patriotic nature in the schools on election day is good and should be encouraged. Everything possible should be done this year to bring out the largest vote ever recorded."

New York Adds Ten Days to School Year

The number of days each year during which school must be in session in New York State has been increased from 180 to 190 by recent action of the New York State Legislature. Compulsory attendance upon part-time instruction by employed minors, 14 to 17 years of age, except graduates of four-year high schools, is required in cities having a population of 20,000 or more, and in districts where there are 200 or more such employed minors. Exceptions are made of children mentally or physically defective. The penalty against parents for permitting their children to violate attendance requirements was increased from $5 or 5 days' imprisonment to $10 or 10 days' imprisonment for a first offense.

Vocational School to Have Beauty Parlor

Contracts have been awarded for the new Essex County Vocational School for Girls, Essex County, N. Y., which call for an expenditure of $705,141. The school will be modern to meet conditions in the industrial and commercial world to-day. It will have a special department for beauty culture, the school board having realized some time ago that beauty parlors have established a business in great demand to-day.

A course in this work is already a part of the curriculum of the present school, but the facilities in the new building will be more modern and complete.

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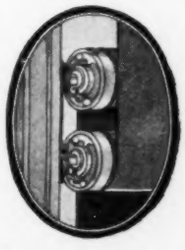

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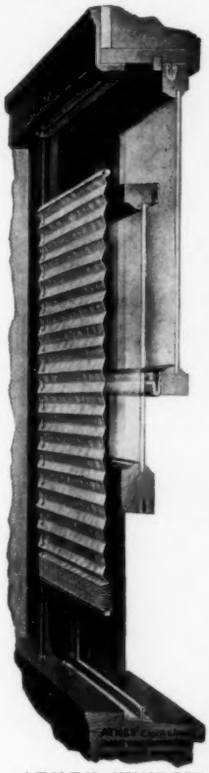

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In the Educational Field

PROF. OSCAR H. WILLIAMS, acting head of the department of education at De Pauw University, has resigned to accept a position in the department of education at Ohio State University, Columbus, Ohio.

RAYMOND J. COSSEBOOM, former head master of Mitchell School, Billerica, Mass., has been appointed head master of the Abbott School, Farmington, Me., following the resignation of ORIN HASKELL.

DR. BRADFORD KNAPP, formerly president of the Oklahoma Agriculture and Mechanical College, Stillwater, Okla., has accepted the presidency of the Alabama Polytechnic Institute, Auburn, Ala.

W. S. WYLER has resigned as superintendent of the Dakotah School for Boys, Dakota, Ill. H. K. BALTZER who was formerly head master, succeeds him.

LOUISE BROWNE ELLSWORTH has opened Ellsworth Hall, a school for children from four to twelve years of age, at Chepiwanoxet, R. I., on Narragansett Bay. Her husband is assisting in the management of the institution.

W. M. SHAPPELL has been appointed superintendent of schools, Allen County, Ohio, succeeding C. A. ARGANBRIGHT who has accepted a similar position in Hardin County.

A. A. RIDDERING, superintendent of schools, Marysville, Mich., for the last eight years, has been appointed superintendent of schools, Melvindale, Mich.

P. S. DOANE, for the last five years superintendent of schools, Gooding, Idaho, has resigned.

L. L. TYLER, former superintendent of schools, Muskegon Heights, Mich., has been appointed head of the department of education, Alma College, Alma, Mich.

COLONEL JAMES RISHER was recently elected head master of Carlisle School, Bamburg, S. C., succeeding W. C. DUNCON.

H. L. TURNER, formerly state rural school supervisor for Arkansas, has been succeeded by W. F. HALL, who, prior to his new connection, was superintendent of schools at Russellville and Camden, Ark.

FLOYD V. WARDMAN resigned as principal of the Gettysburg High School, Gettysburg, S. D., to accept the superintendency of the schools at Wolsey, S. D.

EARL C. DUNCAN has been elected superintendent of schools, Clarinda, Iowa, succeeding E. L. WEAVER.

E. J. CHESKY, who was superintendent of schools at Burlington, Kan., has resigned to become superintendent of schools at Herington, Kan.

REV. H. J. GLENN has been appointed to serve as president of Augustana College, Sioux Falls, S. D. The vacancy was caused by the resignation of C. G. SOLBERG, who becomes dean of the Lutheran Bible School, Chicago, Ill.

B. O. SKINNER, superintendent of schools, Marietta, Ohio, for the last fourteen years, has been appointed president of Wilmington College, Wilmington, Ohio.

DR. G. D. SANDERS, formerly associate professor of English at the University of Arizona, is the newly elected head of the English department at the Michigan State Normal College, Ypsilanti, Mich.

WILFRED MCCUTCHEON, formerly principal of Clay County High School, has been appointed superintendent of the Union district schools, Marshall County, W. Va.

FREDERICK E. BOLTON, dean of the school of education, University of Washington, Seattle, Wash., has been made dean emeritus. He is succeeded by DR. W. L. UHL, formerly director of the school of education, University of Wisconsin. C. J. ANDERSON has taken DR. UHL'S place at Wisconsin.

O. S. HUBBARD has been appointed superintendent of schools in Fresno, Calif., following the election of WALTER R. HEPNER, whom he succeeds, as superintendent of schools in San Diego, Calif.

JOHN A. ENTZ, after serving nine years as principal of the Southwestern State Normal School, California, Pa., has resigned.

V. P. MOCK has been elected superintendent of schools at Gordon, Wis., to fill the vacancy left by A. A. SMITH, resigned.

DR. JOSEPH E. ROWE, formerly director of extension in the College of William and Mary, has been elected president of the Institute of Technology, Potsdam, N. Y.

RAYMOND O. DAVIES, formerly assistant dean of men, University of Iowa, has been appointed dean of men, Drake University.

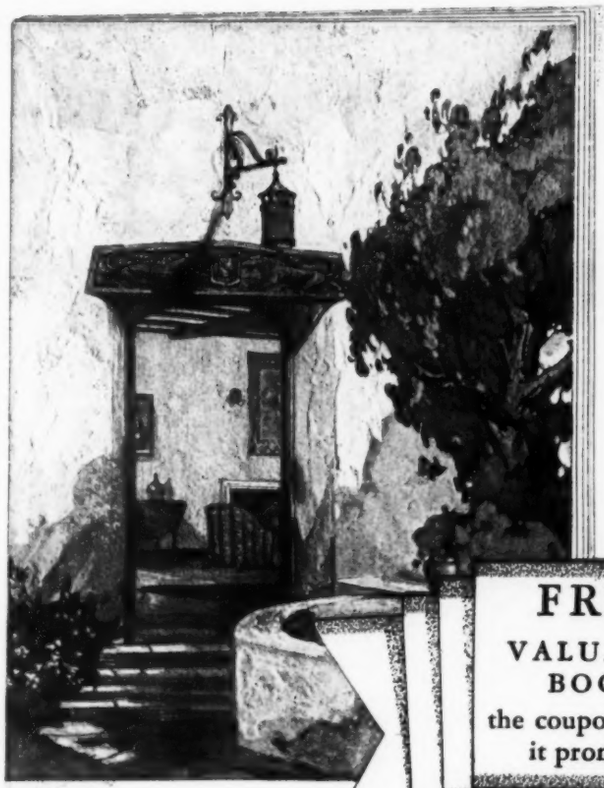
L. A. PACKARD, principal of the Port Huron High School, Port Huron, Mich., has been appointed superintendent of schools, Port Huron, succeeding H. A. DAVIS, resigned.

E. L. WEAVER, superintendent of schools, Clarinda, Iowa, for the last eleven years, has been appointed superintendent of schools, Scotts Bluff, Nebr.

EVERETT W. IRELAND has been appointed to succeed CHARLES S. CLARK as superintendent of schools, Somerville, Mass.

MRS. FLORENCE SCHEE ROBNETT is the new dean of women at Northwestern University. WINIFRED G. RICHARDSON, who held that position for many years, has resigned.

PROF. JAMES H. HANCE, head of the department of geology at the Agricultural and Mechanical College, College Station, Texas, has been appointed dean of the Oregon State Agricultural College, succeeding DR. CHARLES E. NEWTON, resigned.



NOW... Plaster gets the protection it needs!

FREE
VALUABLE BOOK
the coupon brings it promptly

WALLS and ceilings can now be reinforced with steel, exactly like concrete. This book tells how — the coupon or a letter will bring it.

* * *

If you are interested in the low maintenance cost of buildings, you will value this book highly. It describes a new method of building walls and ceilings with four distinct advantages—a method that has proved so effective that it has already been successfully tested in over 200,000 installations.

The basis of this method is the use of STEELTEX, a new material that brings to the protection of plaster the time-proved principle of reinforcing.

STEELTEX is used in place of lath. It is a fabric of rust-proofed (galvanized) cold-drawn steel of high tensile strength, attached to a tough, waterproofed, insulating backing. When plaster is applied, the plaster spreads under the fabric and over it. As a result, the steel is completely embedded in the finished job, to reinforce and to minimize the danger of cracks.

Many advantages in one material

But STEELTEX does not stop with reinforcing. Thanks to its special backing, it brings the welcome quality of *insulation.* It seals every partition *against dampness* and it *deadens sound* to make every room more restfully quiet and peaceful. And naturally it completely eliminates lath marks.

STEELTEX comes in sheets 50″ x 52″, which the lather applies. It is nailed to the studs like any other plaster base, and plaster is applied in the customary manner.

The book, "Better Walls for Better Homes" gives complete details. Will you send for it at once so we can mail you your copy?

New—STEELTEX for floors

STEELTEX for floors, recently introduced, has already been used in numerous important installations. Heavier than other forms of STEELTEX. It is quickly stretched and secured in place over any type of beam or joist. It comes in rolls, not sheets.

Its obvious advantages include maximum construction speed, elimination of forms, prevention of droppings, uniform reinforcement throughout the slab, better curing, etc. The booklet, "STEELTEX for Floors", contains full details with working drawings. Send for your copy of this important book, also.

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DIVISION OF
Pittsburgh Steel Co

1910 Union Trust Bldg. Pittsburgh, Penna.
The world's largest manufacturers of welded steel fabric

STEELTEX

THREE TYPES—SAME PRINCIPLE—SAME PROTECTION

for plaster . . for stucco . . for floors and roofs (concrete and gypsum)

NOW PLASTER IS REINFORCED WITH STEEL—EXACTLY LIKE CONCRETE

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Firm_____
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HĒLIOGLASS

The sun — Nature's ultra-violet ray generator — is always operating — its treatments are free and its beneficial results are unfailing.

Children are entitled to all the health and vigor that Nature offers.

Schoolrooms with ordinary windows are rooms designed to deprive the children and teachers of the life-giving rays of the sun.

HELIOGLASS permits the vital violet rays to enter with the sunlight while ordinary glass shuts them out.

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We will also gladly furnish on request copies of the Bureau of Standards reports covering this glass.

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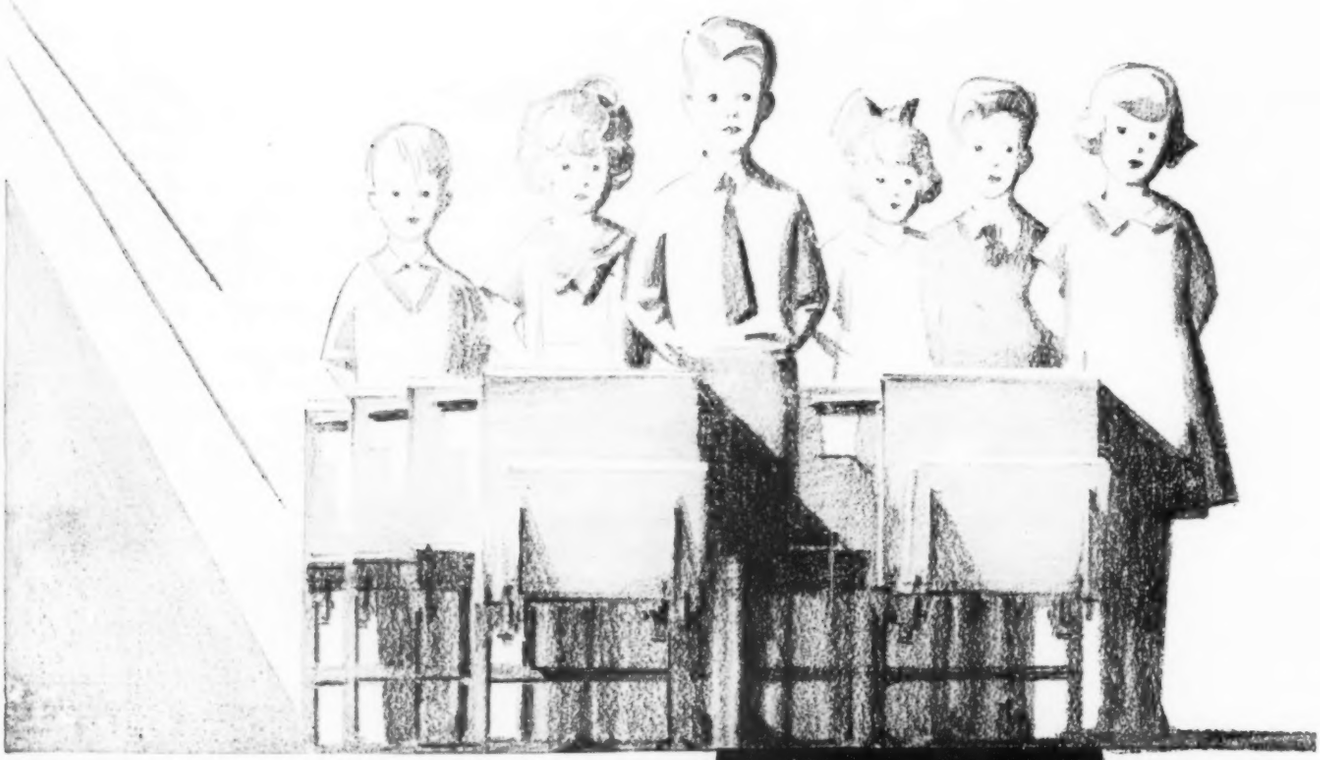
PITTSBURGH, PA.



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MORGAN

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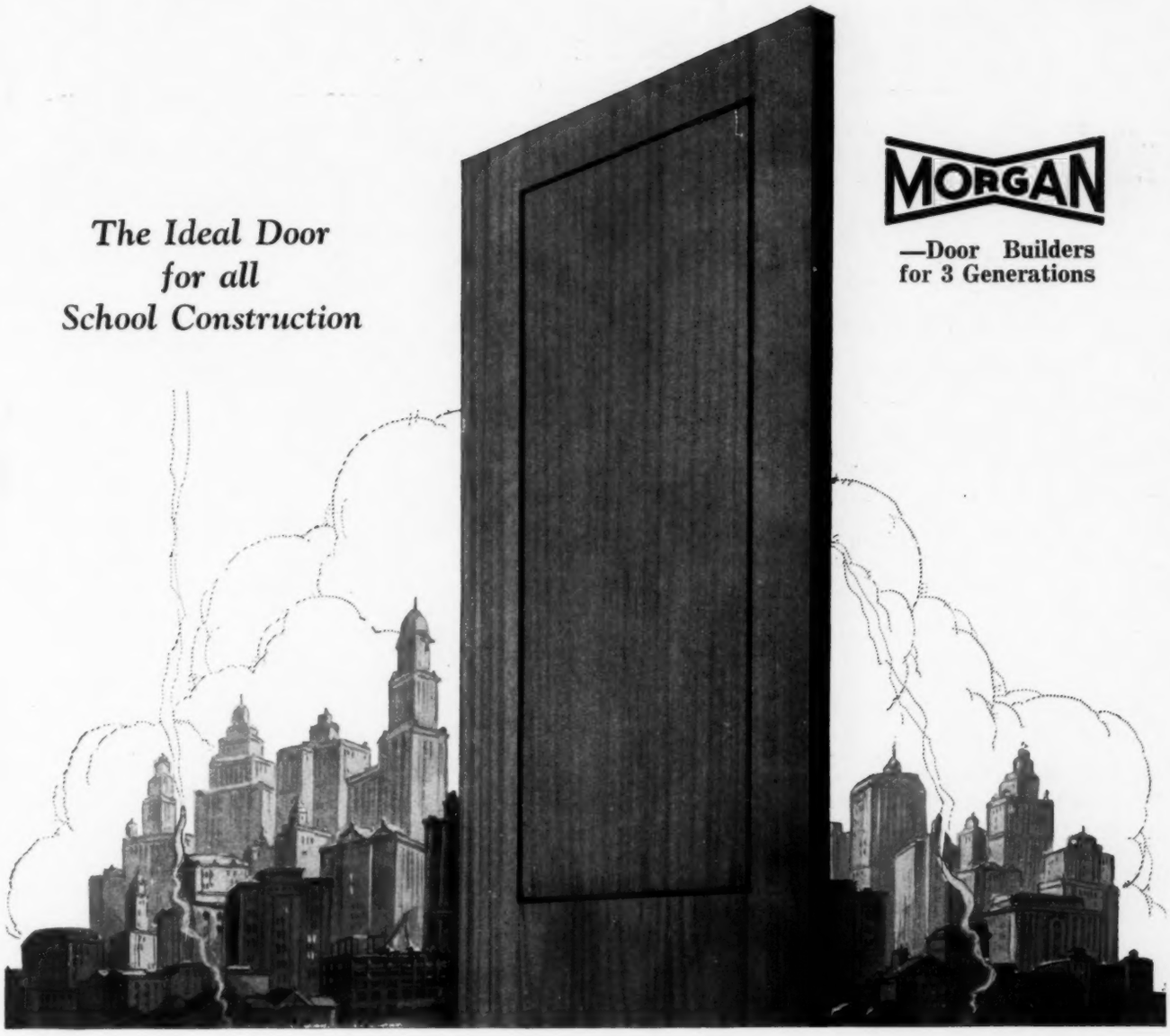

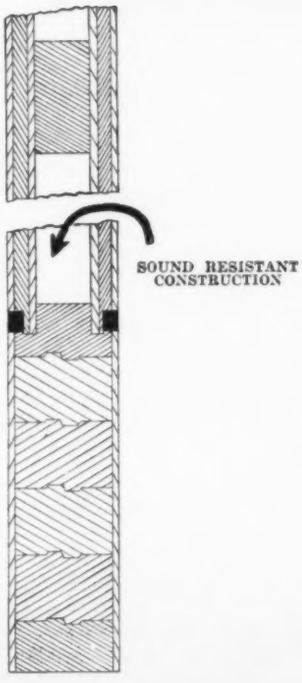

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Proved by Dr. Paul E. Sabine in Tests at Riverbank Laboratories, Geneva

Chosen by leading architects the nation over for its many outstanding features of construction.

To school builders, especially, it recommends itself because of its great resistance to sound. Scientific laboratory tests by the eminent acoustical engineer, Dr. Paul E. Sabine at the Riverbank Laboratories, Geneva, have proven this to be a fact. Dr. Sabine in reporting on his tests says in part:

> **"The reduction of ordinary sounds by the new Flushwood Door is appreciably greater than by either the regular flush door or the one-panel door. While the reduction of sound by two single one-panel doors hung 2 inches apart, is greater than that by a single Flushwood Door, yet the difference is not sufficiently great to justify the increased cost of fitting and hanging two of the lighter doors as compared with a single Flushwood Door."**

Where quiet must be maintained a door which stops sound at the threshold is a valuable part of the building. That is why Flushwood is finding an ever-widening field of usefulness in school construction.

Let us explain fully what Flushwood can offer you in complete door satisfaction. A card to our nearest office will bring all information with a copy of our latest Flushwood catalog.

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In the Educational Field

EUGENE BASH, principal of the Henry Kumpf School, Kansas City, Mo., has been appointed principal of the Central Junior High School, Kansas City, succeeding the late HENRY KING.

WALTER B. CRANE, principal of the Metropolitan High School, Los Angeles, Calif., died recently.

MRS. EDITH CHAPIN CRAVEN has succeeded OLIVE SEWALL PARSONS as principal of Rogers Hall, Lowell, Mass. MISS PARSONS' resignation came with the completion of her eighteenth year as principal.

JAMES F. JOHNSON has been appointed principal of the Boys' Vocational School, Newark, N. J., to succeed LYNN A. EMERSON, who resigned.

EVERETT W. IRELAND has been appointed superintendent of schools, Somerville, Mass.

PROF. WILBUR P. BOWEN, head of the department of physical education, Michigan State Normal College, Ypsilanti, Mich., died after a short illness.

EDWARD R. VAN KLEEK has been appointed superintendent of schools at Walden, N. Y.

GEORGE WALKOTTEN was appointed principal of the Roosevelt High School, Kalamazoo, Mich., to succeed the late MARY B. CARPENTER.

ABBIE PROBASCO is the new principal of Jennings Seminary, Aurora, Ill., succeeding BERTHA BARBER, resigned.

BERTHA HAMILTON has been named dean of women at Transylvania College, Lexington, Ky., succeeding her sister, MRS. MAUDE MENDENHALL, who has accepted a similar position at a college in Wisconsin.

MARGARET A. AUGUR has recently been appointed dean of Bradford Academy, Bradford, Mass.

A. P. BURROUGHS has been newly appointed as superintendent of the Haverstraw Public School, Haverstraw, N. J.

WILLARD W. BARTLETT has been appointed president of Rio Grande College, Rio Grande, Ohio.

FRANK A. HENDERSON, for eight years principal of the Orange High School, Orange City, Calif., has been elected superintendent of schools at Burbank, Calif. LEONARD F. COLLINS, who was formerly in this position is now superintendent of the Chino city schools, Chino, Calif.

RAY HENRICKSEN is the newly appointed superintendent of the Tonopah Mining and Industrial School, Tonopah, Nev.

MARVIN L. WILLIAMS, for several years superintendent of schools at Spring Valley, Ohio, will succeed WILLIAM M. HAWKE as principal of the Lebanon High School, Lebanon, Ohio.

GEORGE H. COLEBANK has resigned as superintendent of schools at Beckley, W. Va., to accept a college position.

WALTER SCOTT PERRY has resigned as director of the School of Fine and Applied Arts at Pratt Institution, Brooklyn, N. Y., after having served for forty-one years. He is succeeded by JAMES C. BORDREAU.

JESSIE CLAIRE MCDONALD, principal, National Cathedral School for Girls, Washington, D. C., for the last fifteen years, died following an emergency operation.

C. D. BROCK has resigned after serving fifteen years as superintendent of the Wallace, Idaho, schools.

Dr. W. H. D. ROUSE, for twenty-seven years head master of the Perse School, Cambridge, England, has resigned and will retire from educational work.

KATHARINE ELLIOTT, formerly principal of the Orton School, Los Angeles, Calif., has been appointed as dean of the King-Smith Studio-School, Washington, D. C.

PROF. F. P. SUMMERS, formerly superintendent of schools at Jane Lew, W. Va., has been appointed to succeed WATT STEWART as head of the department of history and political science at Morris Harvey College, Barboursville, W. Va.

GEORGE S. POTTER has resigned as head master of the Potter School, San Francisco, Calif., and I. R. DAMON is the new head master and owner.

CHARLES E. TEACH has been elected superintendent of schools, San Luis Obispo, Calif.

A. L. KEENEY has resigned as superintendent of schools at Byron, Wyo.

JAMES E. BLUE, former principal of the Luther L. Wright High School, Ironwood, Mich., has accepted a position as principal of the Rockford Senior High School, Rockford, Ill.

WILBUR R. LECRON has succeeded CHARLES H. EHRENFELD as president of York Collegiate Institute, York, Pa.

JESSE O. VAN METER, formerly of Lexington, Ky., has been elected president of Lee's College, Jackson, Ky.

COLONEL CHARLES M. WOOD has resigned as superintendent, and MRS. J. H. HENRY has relinquished her title as president of the California Preparatory School, Covina, Calif. The combined position of president and superintendent will be filled by FRANK L. SMITH, who will also act as temporary head master.

NORA E. MATHESON has been elected to succeed AMY LOWEY as principal of St. Mary's Hall, Faribault, Minn.

ROBERT S. ILLINGSWORTH is the newly appointed head master at Swavely School, Manassas, Va., filling the position left vacant by ELI SWAVELY, the founder, who is also president of the school.

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Electro Mechanical Bell

Fire Alarm Control Panel in Case

"E T S" Fire Alarm Station

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The name "Holtzer-Cabot" on your fire alarm equipment relieves you of all responsibility.

Full particulars will be sent upon request.

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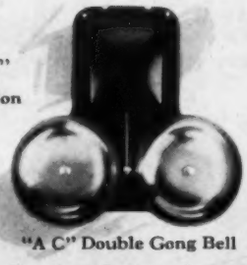

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DUNHAM HEATING

An open letter from the president of C. A. Dunham Co.

OUR National business has become International. Under corporate powers vested in several companies, the latest of these is the C. A. DUNHAM COMPANY, LTD., of London, England.

There are at present more than eighty offices in the United States, Canada and Great Britain, and in addition thereto, there are several agencies in other parts of the World. This forms an active background for the Dunham Differential Vacuum Heating System.

An Organization of Specialists

Certain well defined territory boundaries surround each company office, and all installations are the fixed responsibility of the managing engineer in whose territory these systems may be located.

In each office there are from one to ten members—one or more of whom have engineering training, qualifying them to advise on the proper application of this new heating method.

Its Value Has Been Proved

There is no mistake about the value of heating buildings with low temperature steam which may be varied to meet the needed output to balance the heat loss. Mr. Apple, Superintendent of the Barlum Tower, Detroit, states that the season's cost of heating that forty-story building with this system, was $0.292 per square foot of radiation. The season started September 12, 1927, and ended June 5, 1928; it was a green building and had all the usual handicaps of foreign matter to clear, which invariably attends the first year of any installation. Steam costs were $1.00 per 1000 pounds.

Chicago apartment buildings show greater savings the second season than for the first, with a radiation operating cost per square foot as low as $0.212 for the full heating period just passed using coal as fuel.

We have records on file of installations in and between Quebec, Canada, and Dallas, Texas; between Rhode Island and Oregon, each reflecting variables in fuel conditions and weather changes. Reports from every installation which was in operation during any portion of the winter, have been uniformly satisfactory and with fuel saving established beyond our most sanguine expectations.

A Most Important Development

Our own engineers, who have been so closely identified with me in this development, admittedly agree that for useful results wherever artificial heat is needed, this system numbers with the most important developments of the present day.

A mere statement that the Differential System properly installed and operated can accomplish the remarkable fuel saving claims, sounds bombastic without the evidence, but it is true —we have the evidence and the proof that the Dunham Differential System will save 25% (or more) of fuel over the standard vacuum return line system in general use today.

C. A. Dunham

U. S. Patent 1644114. Additional patents in the United States, Canada and Foreign Countries now pending.

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Motor on Arbor Universal Saw Bench for Schools

The Union Motor on Arbor Universal Saw Bench is the most advanced type of saw bench obtainable and is especially suited for school use. It provides the maximum of speed, accuracy, safety, and compactness at the very minimum cost.

The motor on Arbor construction eliminates belts, gears or flexible couplings and gives the most efficient and most positive drive possible to obtain. The Union Motor on Arbor Saw Bench is the first machine of this type suitable for operation with lighing current. It is portable—easily moved from place to place. Send for description circular. Let us show you why this machine is indispensable to schools teaching modern wood-working and why students have a decided advantage in actual practice when taught with Union Machines.

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ALL SAFE

"the second floor pupils following out their usual drill, slid safely to the ground."

Flame, Heat, Gases, Smoke, Ice and Snow cannot deter the safe exit of children and teachers from the second or third floor of a burning schoolhouse, when a POTTER TUBULAR SLIDE is attached.

PANICS, which are more to be dreaded than fires, cannot happen, as fire drills are practiced on the Fire Escapes. There is no danger of crowding, the children becoming frightened into jumping or falling by accident, as is possible with other types.

38 states have schools now fire safe

POTTER MFG. CORP. 1861 Conway Bldg. CHICAGO

The only Fire Escape with Service Records approved by the Underwriters' Laboratories.

Scenery

Asbestos curtains,
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Stage scenery for your Auditorium stage.

Twenty years of experience in equipping High Schools has placed us in a position to know the particular requirements for your stage.

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"3R" cleaning will not do for modern equipment

HARSH powders, caustics and plenty of scrubbing served the purpose when reading, 'riting, and 'rithmetic made up the school curriculum. Such drastic measures could do little harm to wooden floors and cast iron fixtures.

Today, however, with expensive modern equipment, and many schools boasting cafeterias, rest rooms and shower rooms—monel metal, enamel, tile and china fixtures and linoleum or composition covered floors must be kept clean by less strenuous methods. Injured surfaces mean high maintenance and replacement costs.

That is why hundreds of schools use Oakite methods wherever there is cleaning to be done. Oakite works safely—with a minimum of hand scrubbing. Contains no abrasive, acid, lye, caustic or soap—cannot injure the most highly polished surfaces. Yet, Oakite is thorough. Every bit of dirt and grease is quickly loosened and rinsed away completely. No slippery soap film remains.

Write for booklet "Oakite in Schools." It contains a money saving suggestion for every school cleaning job. No obligation.

Oakite Service Men, cleaning specialists, are located in the leading industrial centers of the U. S. and Canada

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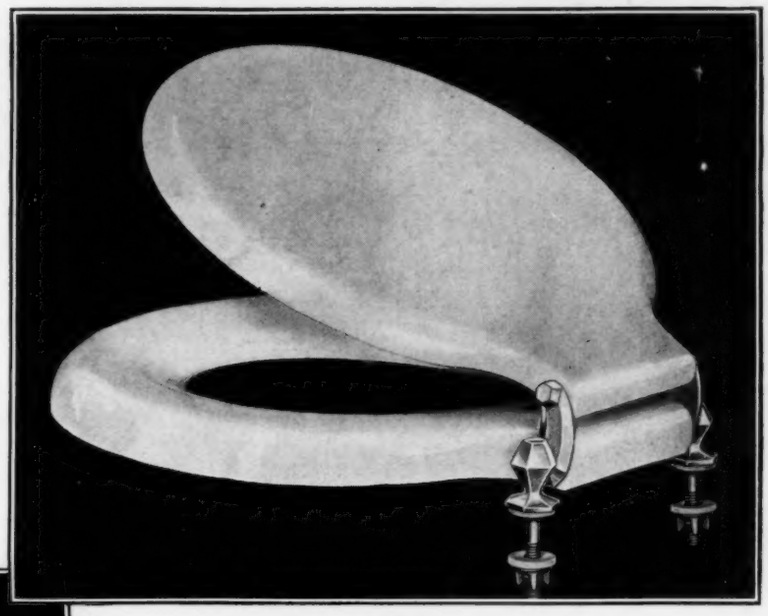
OAKITE
Industrial Cleaning Materials and Methods

A Brunswick Triumph

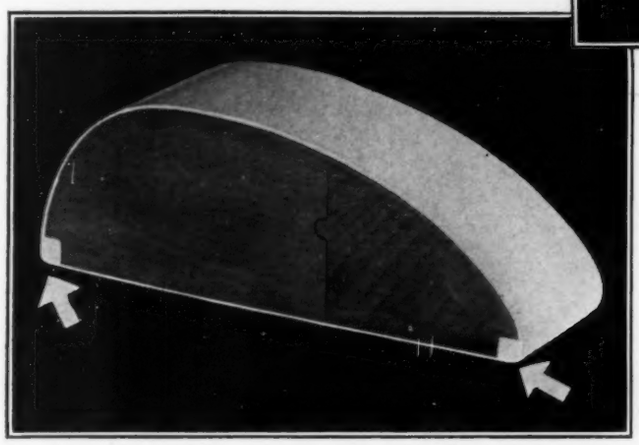
In Seat Manufacture!

A sheet-covered seat that is guaranteed indefinitely not to split at the edges

As shown below, Brunswick's new White Seat has a heavy reinforced cushion of tough, resilient pyralin right on the outer edges where blows and rough usage are liable to cause white seats to split open. The sheet pyralin on the new Brunswick Seat is welded to this heavy cushion edge of pyralin. The seat edge is thus made 9 *times* as thick as a single sheet!



Brunswick White Seat, Model 300, with chromium plated hexagon hinge



THE makers of the famous Whale-bone-ite Seat now offer their newest triumph in seat manufacture. The Brunswick White Seat shown here is a pyralin sheet-covered seat on wood base with a unique patented feature that means complete protection at the outer edge of the seat where danger of damage is greatest.

Instead of merely joining the two sheets of pyralin by overlapping or butting, as has been the custom in white seat manufacture, Brunswick has developed and patented a joint which makes what has been the weakest part of a sheet-covered seat now the strongest.

The two sheets of pyralin are now welded at the edge to a heavy cushion of pyralin. Thus instead of the usual thickness at the edge, where blows are most apt to hit, this new-type seat has solid pyralin there 9 times the thickness of a single sheet!

Even the roughest usage won't damage this amazing new construction. It enables us to guarantee this edge against defects for an unlimited period.

Our large manufacturing facilities enable us to offer the Brunswick White Seat at exceedingly attractive prices.

In addition to the Whale-bone-ite Seat, and this new White Seat, Brunswick is now manufacturing a complete line of wood seats. Thus in the Brunswick line you can now find seats for every type of installation. Our catalog showing all models should be in your file. Write for it. The coupon is for your convenience.

Fill In, Clip and Mail

Box 295, Seat Department
The Brunswick-Balke-Collender Co.
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Send your complete catalog, showing all models of Whale-bone-ite, White and Wood Seats.

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Address.....

City..... *State*.....

BRUNSWICK WHITE SEATS

Made by the Manufacturers of the Whale-bone-ite Seat

THE BRUNSWICK-BALKE-COLLENDER CO. · **Chicago** · **New York**

HIGHER EFFICIENCY
BETTER APPEARANCE
REDUCED EXPENSE

All can be secured thru a regulation adopted outfit for your

GIRL'S GYMNASIUM CLASSES

We have helped hundreds of SCHOOLS and COLLEGES to a higher plane of attainment in PHYSICAL EDUCATION and student interest thru the medium of uniform and practical Gymnasium Apparel.

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Movable Chair Desks

FOR LESS MONEY THAN THE OLD STYLE

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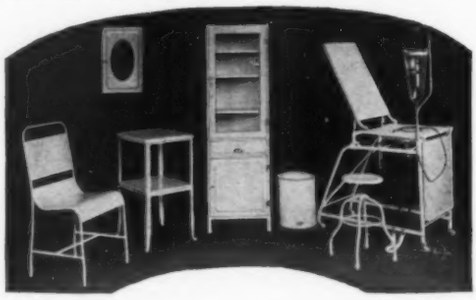
We produced the first steel desk and other school furniture made of sanitary steel. Our products are still in the lead for sanitation and correct posture.



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Standard-ized Cape Uniforms are made in a wide variety of color combinations simplifying selection of school colors.

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IF you are interested in the cleanliness of floors of your school and you've never scrubbed a floor yourself, get a brush and do it now.

Make this Test!

Take your brush in hand and just go over the floor **lightly**, then **put your weight on that brush**—and immediately you scrub more thoroly, more quickly (because you don't have to scrub so long in one spot), and your floor is cleaner, because your brush has reached into cracks and scrubbed out all the dirt.

Another "Interesting" Test

You will have noticed how you brushed the suds aside as your brush went around and around. Now take two brushes and imitate the action of the Lincoln Twin Disc—around and around **towards the middle!** The difference is readily apparent.

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The entire weight of the Lincoln is **on the brushes.** You know that that **is important.** And the brushes revolve towards the middle. You have demonstrated the effectiveness of this! We will gladly send you the Lincoln for a Free Trial ***on your own floors.*** Write us today.

The Lincoln Twin Disc Floor Machine Wax Polishes Scrubs and does Light Sanding

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FLOOR-MACHINERY CO., INC.
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TIRRILL Gas

An economical gas plant that makes you independent, and supplies gas for *all* needs at a very moderate cost.

The TIRRILL Gas Machine

furnishes a steady supply of safe and dependable gas of standard, uniform quality; non-poisonous and absolutely smokeless.

Gas made instantly and automatically, as wanted, right on your premises.

THE Tirrill is the *only* machine that mixes the gas outside of the building and underground. Listed as Standard by the National Board of Fire Underwriters. Nothing to get out of order or need repairs.

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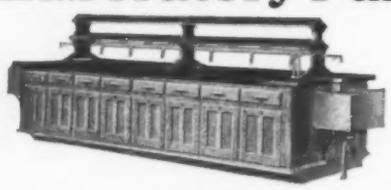

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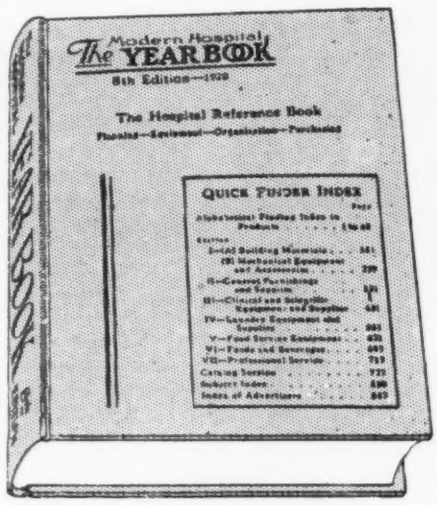

SCHOOLS, Colleges and Universities having infirmaries and hospitals will find a practical use for The MODERN HOSPITAL YEAR BOOK, 9th Edition, 1929. This annual reference volume, with its 900 pages, is the one complete guide to the problems of hospital planning, equipment, organization and purchasing. It will serve an indispensable purpose, for it combines in one volume essential and detailed reference to the many considerations of this phase of school service.

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A PRODUCT of S. GUMPERT CO. Inc. Brooklyn, New York
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Orange Gelatine Dessert
PURE FRUIT FLAVOR
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SERENE SUMMER

"I agree with you, Isabel—
This Chocolate Cream Dessert is Wonderful!"

NOT only delighted customers but delighted chefs say it's wonderful. For *Gumpert's Cream Dessert* is not only superlatively smooth, rich and creamy but it is so easy to make and brings such worthwhile profit.

Simply add two quarts of water to a package and boil - - that's all. You don't even have to add sugar, as it is already properly sweetened. Serve it in any number of tempting ways - - with whipped or plain cream, or sprinkled with a garnish of chopped nuts or confections.

Easy to make, easy to sell, a popular favorite with everybody, *Gumpert's Chocolate Cream Dessert* costs you only three cents a portion topped with whipped cream. Selling it at ten cents your profit is seven cents. Mighty few desserts offer you such an attractive profit.

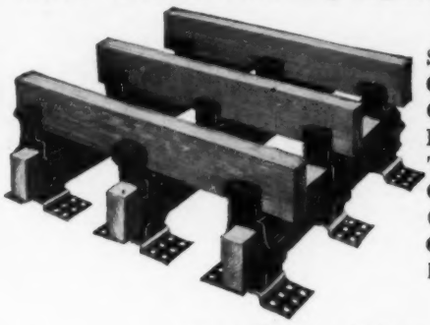
Try Gumpert's Chocolate Cream Dessert. We will gladly send you a sample if requested to do so.

Gumpert's Cream Dessert

A PRODUCT *of* S. GUMPERT CO., INC., *Brooklyn, N. Y.*

NOISE HAS NO FRIENDS

Modern schools are now taking every precaution to rid class rooms of unnecessary distracting noises. Send for interesting engineering data.



Schools
Colleges
Gymnasiums
Hospitals
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Hundreds of the most modern buildings noise-protected with

STEVENS
Sound-Proof
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CEILINGS, FLOORS and WALLS

The isolation of sound waves by the Stevens method is a proven engineering success. The mere filling of walls, ceilings and floors with any one or a combination of sound absorbing products, has failed to satisfactorily solve noise problems. Stevens Sound-Proofing devices and scientifically proved methods, which include necessary changes in ventilation flues, are so effective that even the operation of bowling alleys beneath playhouses is no longer considered an impossible combination.

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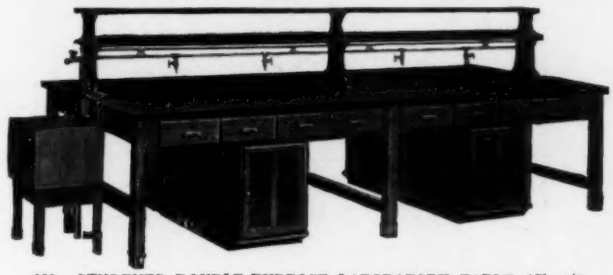
PETERSON
Laboratory and Library Furniture



939. STUDENTS DOUBLE-PURPOSE LABORATORY TABLE (Chemistry and Agriculture) desirable when limited space will not permit separate laboratories.

L-5060. READING TABLE of improved construction assuring absolute rigidity—legs equipped with cast brass sockets.

Modern in design, sturdily constructed of quality materials, PETERSON EQUIPMENT is the choice of many leading educational institutions.

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This 10-Point Test
Leads You to National — the Most Modern and Scientific Equipment

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THE NATIONAL SCHOOL EQUIPMENT CO.
Manufacturers of Complete School Equipment
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No. 101
Combination Desk with Moeser Arm Top. Standards finished in durable, baked enamel; woods, in National process finish, both in a soft brown color.

No. 181
New National Pedestal Desk. A favorite where fixed seating is required.

No. 31
New National Chair-Desk. Equipped with the Moeser Extended Arm.

No. 182
National Pedestal Desk with deep curved veneer back and comfortably shaped saddle seat.

No. 131
Pedestal Tablet Arm Chair.

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NATIONAL School DESKS
"Famous for Comfort"

Maple Flooring for Schools

REPEATED tests have proven that there is no substitute for hard maple floors in schools. Its even textured fibres toughened by hard winters assure you of the floor which will withstand the rough and hard usages to which they are exposed by children's feet. By specifying Robbins Hard Maple Flooring you are assured of a first class floor.

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The World's Most Modern Schools

recognize the importance of HAMLINIZED edge tight SOUND-PROOF DOORS and folding partitions

Northwestern University's New Buildings: Levy Mayer Hall and Gary Library of Law, equipped with Hamlin's Sound-Proof Doors. Jas. Gamble Rogers, New York; Child & Smith, Chicago, Associate Architects

The Northwestern University has been equipping new buildings with HAMLINIZED Sound-Proof Doors Since 1910

Hamlinized Folding Partitions make possible the division of assembly rooms or other large spaces into smaller recitation rooms.

Hamlinized Doors retard the transmission of distracting sound waves and favor thought concentration. Overcrowded schools can find relief by making better use of existing rooms.

Modern colleges, institutions, and churches are insulating their study rooms with **HAMLINIZED** Edge-Tight Sound-Proof Doors and Folding Partitions.

Information on request.

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Manufacturers

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Provides Exercise and Amusement for ONE or FIFTY Children at a time

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The November Issue

PROFESSOR M. V. O'SHEA vigorously defends the American educational system.

G. E. IROS of Cleveland, tells how old buildings can be efficiently revamped to meet modern demands.

JOHN LOUIS HORN of Mills College, California, writes of the logical age at which children should start school.

HOWARD BRIGGS, Director of the Department of Vocational and Practical Arts Education, Cleveland, describes modern methods of training in vocational schools.

SAMUEL ENGLE BURR continues his October article on the basic cycle for progressive education in Lynn, Mass.

THE NATION'S SCHOOLS

660 Cass Street **Chicago**

If Rattling Chairs Annoy You—

You will be interested in CLINCHER CUSHION CHAIR TIPS. They eliminate noise effectively and economically. Save your chairs, your floors, and your nerves.

A line from you will bring you samples without obligation.

Clincher Cushion Chair Tip Co.
Box 295, Fullerton, Calif.

Cleveland Heights High School, Cleveland Heights, Ohio
Franz C. Warner, Architect *Schirmer O'Hara Co., Contractors*

IN the new Cleveland Heights High School, the beauty of design is matched by the quality of construction. Wood floors are anchored over concrete by thirty-nine thousand Bull Dog Clips.

Write for samples, installation charts and cost data to complete your files.

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ANCHOR WOOD FLOORS TO CONCRETE

Palmer Memorial Hospital of Boston is completely equipped with

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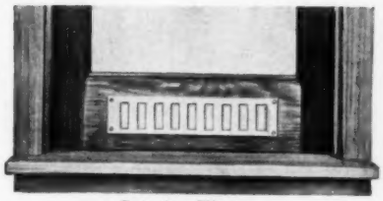
Sash Rail VENTILATORS

This building will have ample fresh air without draughts, dirt, rain and snow.



Interior View

VENTILATE FOR HEALTH

Health today requires proper ventilation, which is best secured by means of V-W Ventilators, the only ventilators with the patented R-shaped vertical louvers.

V-W removable ventilators are also made on this exclusive design

THE V-W VENTILATOR CO.

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Columbus, Ohio

West Point Orders Another Wayne Steel

Sectional Grandstand

Last January, West Point bought their first Wayne Grandstand. The exacting tests to which this stand of 1500 seats was put, proved its superiority, safety, and value so conclusively, that the United States Military Academy has recently purchased additional Wayne Stands, increasing the capacity to 4000 seats.

Certainly such an endorsement of the Wayne Grandstand should carry weight with any school or college contemplating the purchase of modern seating facilities for their athletic events.

Write for complete information and prices.

Now! Prompt shipment of any number of seats.

WAYNE IRON WORKS
Lincoln Highway and Pembroke Ave.
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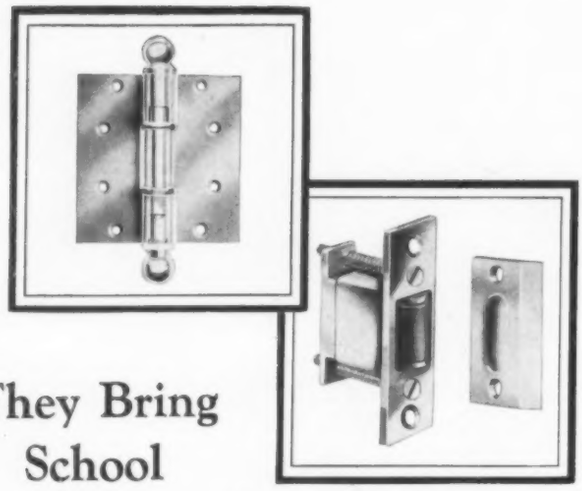
Wayne Stands for Safety



They Bring School Doors *Under Control*

This special school hardware by McKinney consists of a hinge providing *constant friction control*, (eliminating free-swinging, slamming doors); a Noiseless Roller Catch, taking the place of a metal latch; and a Rubber Door Stop acting as a cushion.

The Noiseless Roller Catch requires no knob to retract the bolt to open the door. A push on the door is all that is necessary. Most class room doors open into the halls. The McKinney Catch therefore makes an ideal safeguard against fire and panic dangers. Write for details to McKinney Mfg. Co., Pittsburgh, Pa.

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friction control
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My history classes are unusually responsive, now that I have maps with which to impress historical facts and trace important social, political and economical developments. History recitations are always interesting, my pupils are eager and responsive. History maps are certainly a necessary "teaching tool". . . A copy of our beautifully illustrated catalog describing the famous Johnston-Nystrom publications for history instruction sent free to teachers, principals and superintendents. Pin this "ad" to your letterhead.

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School Maps, Globes and Charts

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Bennett Hall, University of Pennsylvania. Philadelphia. Stewardson & Page, Archts.

A typical Roddis Flush Door for schools. Figures or letters inlaid when desired.

RODDIS FLUSH DOORS

in Prominent Schools and Universities

Roddis Flush Doors cannot warp, sag, shrink, swell, separate or check. Heat, cold, dampness, water, steam have no effect on them.

By the Roddis principle of flush door construction five solid layers of wood offer effective resistence to the passage of sound and fire.

These are some of the reasons why Roddis Flush Doors are specified by many prominent architects for school buildings.

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126 Fourth Street
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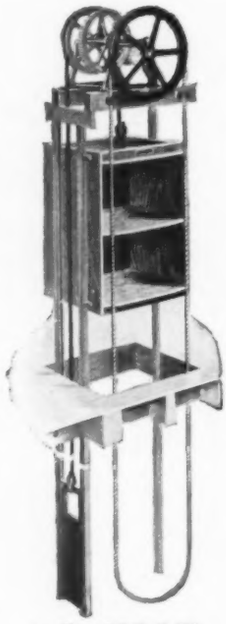

Type "F D C G"

DUMB WAITERS AND ELEVATORS

The new Sedgwick Type "FDCG" Geared Automatic Brake Dumb Waiters are designed for school, college, and similar service where average loads range from twenty-five to seventy-five pounds and occasional loads up to two hundred pounds.

Other Sedgwick Outfits are suitable for other requirements.

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ALL WOOL—FAST COLORS

ANY COLOR COMBINATION DESIRED

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All Materials
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Garments are Tailored to Individual Measurements

CAPE AND CAP **$7.00**

COAT, TROUSERS AND CAP **$16.75** and up

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WATERPROOFED"
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B85

D. KLEIN & BRO. INC.
Makers of GOOD Uniforms for 74 Years
715-17-19 ARCH STREET PHILADELPHIA, PA.

Aznoes have some excellent nurses still available for school openings. Here are a few:

A—American, age 28, registered Missouri and Illinois, 8 years' experience School nurse in one Illinois City wishes position in East.

B—Registered Nurse, Pennsylvania, Delaware and West Virginia, nine years' experience in both city and rural Public Health, available immediately.

C—Graduate well known middlewest hospital, one year College, post-graduate in Obstetrics and Public Health, five years' school nurse experience, seeks Southwestern position paying $1,800.

No. 1958

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CENTRAL REGISTRY *for* NURSES
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An Applicator Bottle

furnished with our compliments in your own medicine cabinet will soon convince you that

MERCUROCHROME—220 SOLUBLE

(dibrom-oxymercuri-fluorescein)

IS THE

Logical Successor to Tincture of Iodine

FOR

First Aid Prophylactic and General Antiseptic Use

Mercurochrome stains as Iodin does, and it is the stain of Mercurochrome, as it is of Iodin, that shows just where and how effectively the germicide has been applied; it fixes the bactericidal agent in the field for a relatively permanent period which prolongs the asepsis or the sterilizing effect, and it provides for demonstrable penetration into the tissues beneath the superficial surfaces. Inasmuch as Mercurochrome is definitely proved an extremely efficient general antiseptic, it is only reasonable to consider it the successor to Iodin in this field, as it is free from the objectionable features of Iodin, for

MERCUROCHROME DOES NOT IRRITATE, BURN OR INJURE TISSUE

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DEPT. N, BALTIMORE, MD.

Please send me Mercurochrome Applicator Bottle for personal use.

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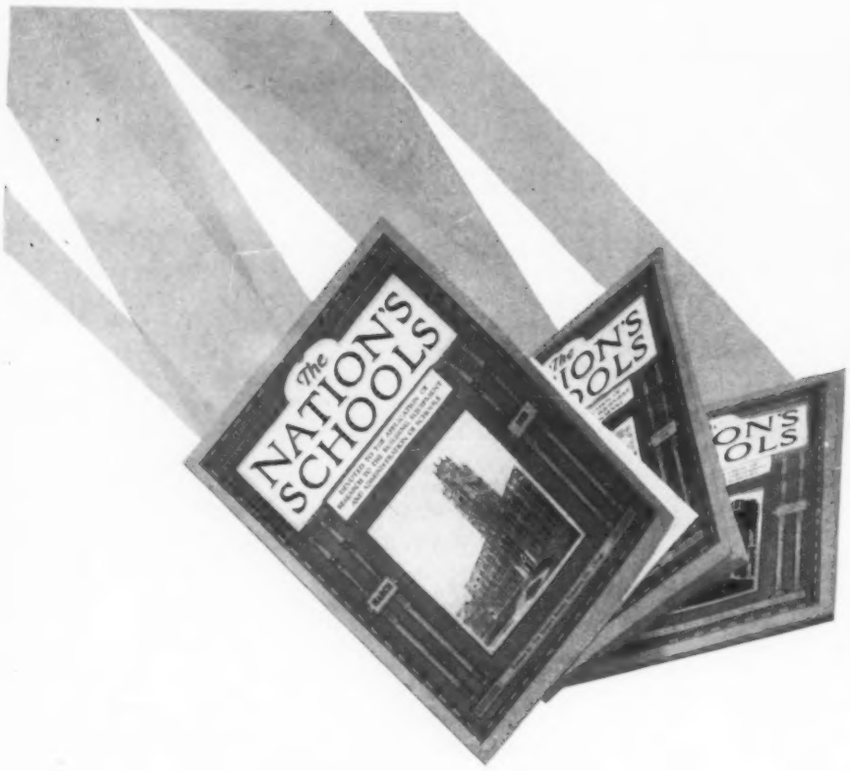


How Many Pages of This Issue Will You Read?

TRUE publication service extends from cover to cover. The busy administrator recognizes this fact. In his hasty perusal of his business journal he goes over each page. In the text he reads all articles that have pertinent bearing on his particular problems. Then he acquaints himself with the efforts of others, and in a thorough way puts down in his memory, valuable and authoritative facts for a better attention to his duties.

And from the advertising pages, as well, he absorbs the messages that are constantly being broadcast. Here he receives testimony on the school of industry—information on the facilities that go into the physical makeup of the modern school. For example, here is a column of excerpts taken from advertisements in this issue of The NATION'S SCHOOLS.

"Harsh powders, caustics and plenty of scrubbing served the purpose when reading, 'riting and 'rithmetic made up the school curriculum. Such drastic measures could do little harm to wooden floors and cast iron fixtures. Today, however, with expensive modern equipment, and many schools boasting cafeterias, rest rooms and shower rooms—monel metal, enamel, tile and china fixtures and linoleum or composition covered floors must be kept clean by less strenuous methods. Injured surfaces mean high maintenance and replacement costs."

* * *

"The medical examination room is today an invaluable asset in the modern school. Here the responsibility of safeguarding health is met, and a new and higher standard of student health maintained."

* * *

"Shower and dressing room partitions must be as sturdy and strong as the husky youths who will be banging them about during the years to come."

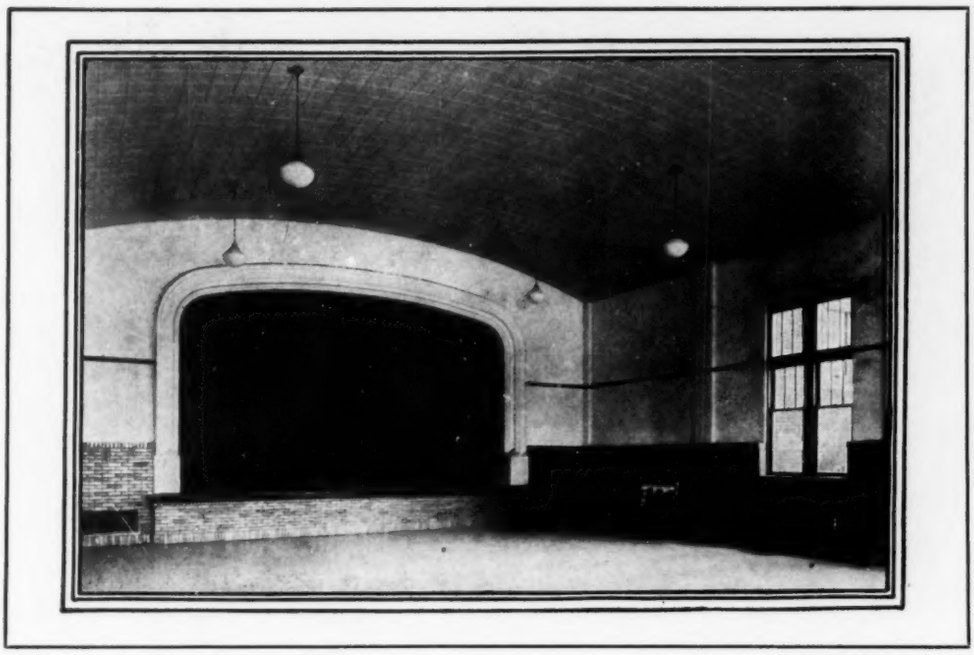
* * *

"Noise is a constant irritating factor in schools. It disturbs concentration and is a strain on the nerves. More than one sensitive youngster has failed in his schoolwork because of this undue nervewear. And noise is equally hard on teachers, for it distracts their attention and wears down their patience."

* * *

"For painting a billboard a six inch paint brush may be most effective. For painting a sunset on canvas, the finest of camel's hair brushes may not be too small. The purpose determines the size. It is so in floor maintenance. One school building has four rooms—another fifty, including large assembly, gymnasium, etc. One has tile corridors—another linoleum. One has stationary desks—another removable. One cleans every day—another twice a week. No one floor machine can fit both needs."

Only those offering approved products or services for schools are invited to use the advertising pages of The NATION'S SCHOOLS



Gymnasium-auditorium, School No. 34, Indianapolis, Indiana. Acousti-Celotex was applied here to quiet noise and confusion, and to eliminote unpleasant echoes. D. A. Bohlen & Son, architects; Chas. E. Wehr Company, Acousti-Celotex contractor.

Less Noise and Better Hearing for your schools

NOISE is a constant irritating factor in schools. It disturbs concentration and is a strain on the nerves. More than one sensitive youngster has failed in his schoolwork because of this undue nerve-wear. And noise is equally hard on teachers, for it distracts their attention and wears down their patience.

But you can easily spare your students this waste of mental energy. For Acousti-Celotex, applied to ceilings and walls of *any* school room, will reduce sound disturbance of *all* kinds. This strong fibre tile has remarkable sound-absorbing qualities. It creates quiet by the simple process of *swallowing-up* distracting noises and echoes.

Acousti-Celotex, installed in gymnasiums, will prevent noises arising there from reaching recitation and study rooms. Also the noisy confusion coming from school shops, corridors, cafeterias, chapels, band and chorus roooms is greatly reduced with this sound-absorbing tile.

Your school auditorium will be much easier to hear in, after Acousti-Celotex has been installed. School assemblies, plays and operettas can be conducted without interference from sound reverberations, thus making programs both enjoyable and effective.

Acousti-Celotex, type BB, has a sound-absorbing efficiency of 70%—the highest of any material on the market. Small openings, drilled *deep* into the tiles, act as tiny tubes which carry sound vibrations to the noise-absorbing fibres *inside*.

Because of these deep openings, paint cannot interfere with the sound-absorbing efficiency of Acousti-Celotex. So you can paint the tiles white for soft, indirect lighting.

Write us today for further information on this remarkable noise-quieting material, that adds so much to the efficiency of your school!

THE CELOTEX CO., Chicago, Ill.

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ACOUSTI-CELOTEX

FOR LESS NOISE—BETTER HEARING

16th District School No. 2, Milwaukee, a fine example of a modern school embodying Milcor Products.

Young America *deserves more* Firesafe Schools

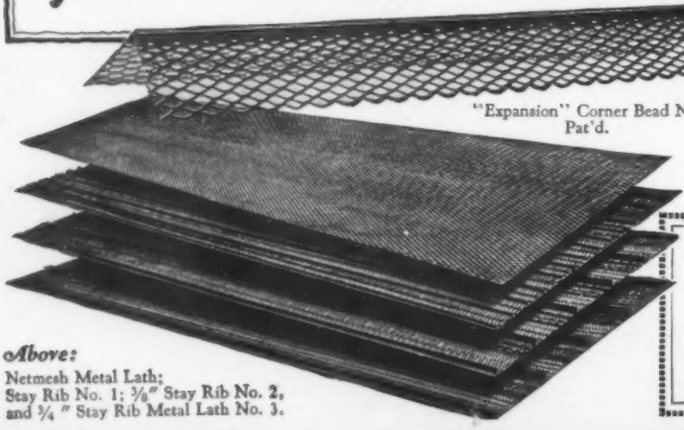
WHEN the National Committee for Chamber of Commerce Cooperation with Public Schools and the American City Bureau completed its investigation of 7150 school buildings in 429 cities, these startling facts were disclosed.

Only 5% of our schools are constructed entirely of fire resistive materials. 13% classify as semi-firesafe, with fire resistive construction in walls, floors, stairways, and ceilings, but with combustible flooring and roof construction over fire resistive ceiling. 17% are in the class that *appear* safe, with masonry walls, fire resistive corridors and stairways, but ordinary construction otherwise in floors, partitions, roofs and finish. *65% of our schools are unsafe* . . . . . with ordinary joist construction, combustible interior finish, many with wood foundations and roofs on which Fire thrives!

Architects who have opportunities to guide the designing and building of schools will find many products in the Milcor Line vitally important to safety. The new 96-page "Milcor Manual" will bring complete data to you. Shall we send it?

MILWAUKEE CORRUGATING COMPANY, *Milwaukee, Wis.*
Chicago, Ill. Kansas City, Mo. La Crosse, Wis.

MILCOR *for* SAFER SCHOOLS



"Expansion" Corner Bead No. 1 Pat'd.

Above:
Netmesh Metal Lath;
Stay Rib No. 1; ⅜" Stay Rib No. 2,
and ¾" Stay Rib Metal Lath No. 3.

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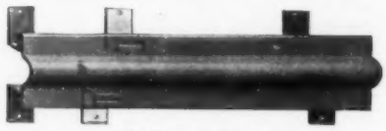
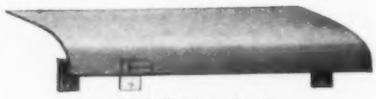
SPANISH METAL TILE
and other forms of roofing in Steel, "ARMCO" Ingot Iron, Zinc and Anaconda Copper

MILCOR FIRESAFE INTERIOR TRIM

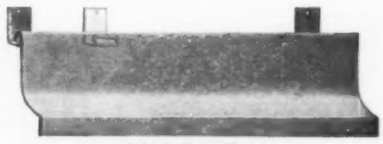


Metal Chair Rails

Metal Chalk Troughs and Blackboard Trim



Metal Window Stools



Metal Cove Bases

Send for "The Milcor Manual"

MILWAUKEE CORRUGATING CO., Milwaukee, Wis.
Please send, without cost or obligation, "The Milcor Manual" on metal lath construction, and "The Milcor Guide."

☐ Check here if interested in Milcor Products for school construction.

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A right size FINNELL to polish and scrub your floors at a saving in time and money

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It is so in floor maintenance. One school building has four rooms—another fifty, including large assembly, gymnasium, etc. One has tile corridors—another linoleum. One has stationary desks—another removable. One cleans every day—another twice a week. No one floor machine can fit *all* needs.

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4 Brushes —
230 RPM
Weight 60 pounds

FINNELL meets this problem, not with one scrubber polisher or just two—but *eight!* From the large No. 20 for heavy duty and large areas to the light and agile No. 50 for small areas there's a right FINNELL for every purpose.

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2 Brushes —
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Let us make a survey of your floors, and then out of our quarter century of experience recommend the *system* which will give you best results.

If you cannot use a FINNELL System with satisfaction and profit, we do not want you to have one. If you *can*—you want to have one. The survey will tell—no obligation incurred by requesting it. Address FINNELL SYSTEM, INC., 3610 East St., Elkhart, Ind. Also Standard Bank Bldg., Ottawa, Ont., Canada. Factories, Elkhart, Ind., Hannibal, Mo., and Ottawa, Ont., Canada.

It polishes
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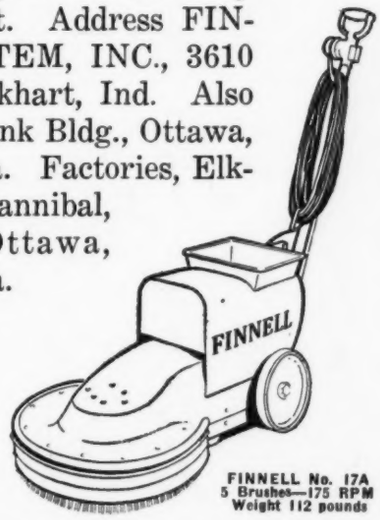

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ELECTRIC FLOOR MACHINE

150 Pounds Pressure

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2500 Pounds Pressure

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Proof of conscientious school building

When still another school is added to the long list of "Crane-equipped throughout," it is evidence that a school board and building staff have placed true economy and the best interests of pupils and public ahead of any temporary considerations.

For "Crane throughout" means not only Crane fixtures to promote sanitation. It means Crane valves and fittings placed where they may not be seen but where their effects will be keenly felt.

Nowhere does sound building practice pay better dividends than in the piping system. Poor piping is a continual burden and expense. Good piping guards against drips and leaks, reduces fuel bills, saves heavy repair and replacement charges, and adds years to the usefulness of a building.

And because true angles and accurately cut threads save installation time, Crane piping materials, backed by a 73 year reputation, often cost less than substitutes.

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